

# COLLEGE & RESEARCH LIBRARIES

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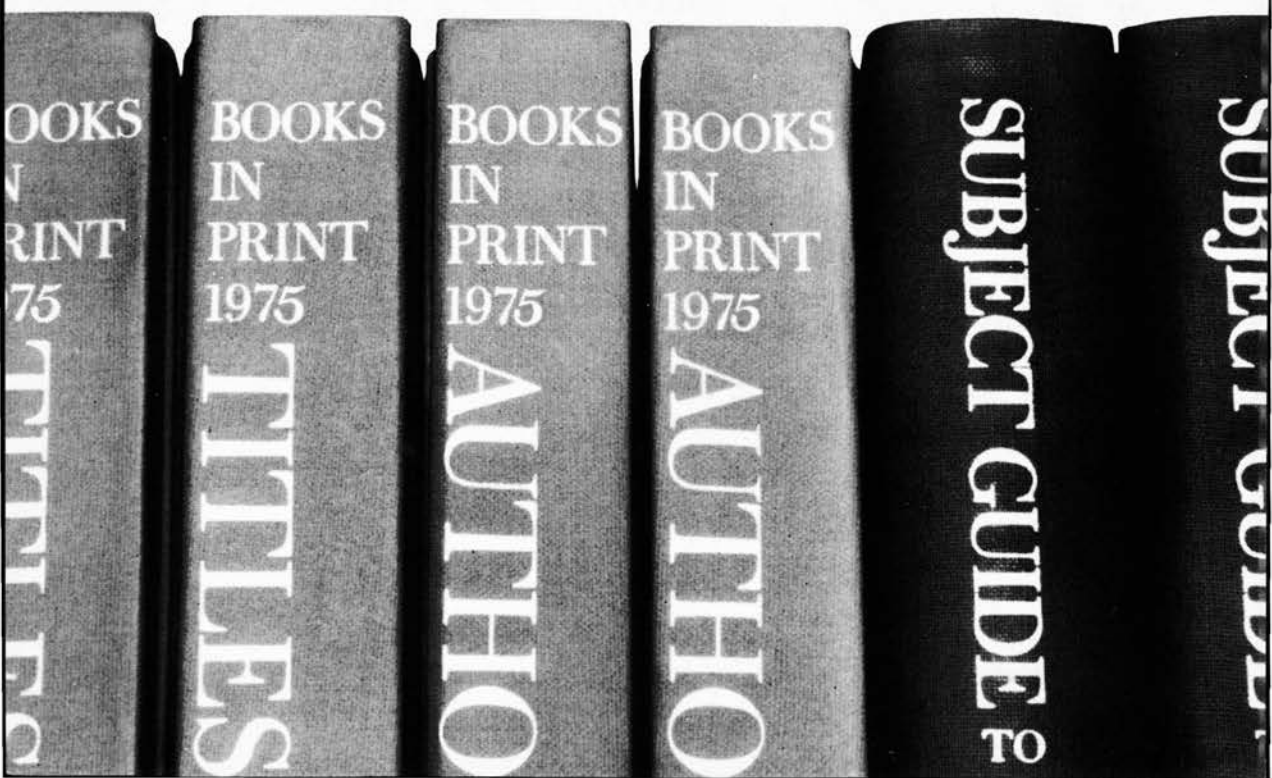
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## A Matrix Approach to Position Classification

*This article presents the results of a study prepared in connection with the development of a classification system for librarians in the University of Western Ontario. The study employs the formulation and application of four "general" and five "ranking" factors in position classification; the development of a matrix using the above factors on a vertical axis and the desired number of positions on a horizontal axis; and the analysis of all existing professional positions in terms of the matrix. Administrative implementation of the findings is also described, including the appeals procedures established.*

EARLY IN 1971 Dr. Robert Lee, university chief librarian of the University of Western Ontario, Canada (UWO), invited Dr. John Wilkinson and Dr. Kenneth Plate of the University of Toronto Faculty of Library Science to consult with his administrative group and with representatives of the Librarians' Association of the UWO Library System in order to develop a classification program for librarians in that system. The following paper is a result of the ensuing cooperation between the two consultants, Dr. Lee, and many members of his professional staff.

### THE PURPOSE OF REVIEWING A CLASSIFICATION PROGRAM FOR PROFESSIONAL POSITIONS

This paper presents in brief a somewhat different approach to position classification for librarians. This approach—while developed specifically for the

UWO system, which is considered to be relatively advanced in its management by objectives concepts and in the strength of its management at all levels—can be applied to all types of medium-sized and large library organizations. Indeed, the approach involved the formulation and application of a schemata of "general" and "ranking" position characteristics which may have considerable theoretical as well as practical interest for librarians. Insofar as the analysis is of interest, it will also be controversial; but controversy is the crucible of philosophy, and librarianship, we may at least agree, is long overdue for a philosophy of its own.

Nothing is more central to the health of a library organization than the motivation of its staff. Nothing is more detrimental to that motivation than an irrational position classification. Given that relatively large and complex organizations apparently require at least a modicum of hierarchical stability, it does not follow that such stability can be achieved through administrative fiat alone. Indeed, in a society more and more influenced by concepts of egalitar-

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*John Wilkinson and Kenneth Plate are members of the Faculty of Library Science, University of Toronto, and Robert Lee is university chief librarian, University of Western Ontario, London, Ontario.*

ianism and specialization, the legitimacy of externally imposed power is being increasingly challenged. No longer is the dictate that a superior position exists by virtue of its superiority—that a department head is a department head—wholly acceptable to a subordinate possessing specialized skills and the knowledge of having made an important contribution to an organization. Nor *should* administrative authority as such be acceptable in a healthy organization—particularly if that organization includes a strong “professional” element. Some other rationale for position classification and hierarchical development is clearly needed.

We will not here become involved in the increasingly tiresome debate as to the nature of professionalism, except to note that, however we define “professionals,” the concept of a specialized body of knowledge and consequently of “expertise” seems inevitably to develop. It is important at this point to note also that nothing in the definition of “professional” nor in the application of the general factors proposed in this paper should be construed as being derogatory to support positions. The constants used are merely delineators. A support position may clearly be more valuable to an organization than a professional position in a given context.

A defensible position classification must attempt to optimize the use of human resources. A defensible professional position classification must rationalize, first, the optimum use of professional personnel as distinct from support staff and, second, the ranking of professional positions on an ordinal scale in terms of key factors of professional service.

First, unless the classification program clearly distinguishes between professionals and support staff, it cannot be justified as a professional position classification; and its application may indeed destroy the professional nature of the

organization. Second, unless the program leads to a rational, viable, and easily justifiable ordinal ranking of professional positions, it can have little value as a classification tool.

The following approach meets the first criterion in that it identifies those characteristics which should be common to all professional positions and which, in total, delineate such positions from support positions on the one hand and from administrative positions on the other. These factors are here termed “general factors.”

The approach meets the second criterion in that it identifies those factors, distinct from the general ones, which should show greater development as the levels of positions in the classification schedule rise, and which may, therefore, be used to rank positions in a broad classification scheme. These factors are here termed “ranking factors,” and they are significantly characterized by their quality of continuum growth which enables them to alter in degree but not in kind as the continuum nears the upper levels of the schedule. Ranking factors, therefore, may be viewed as developmental stages in a given continuum.

There are a number of studies in the literature of librarianship useful in constructing a position classification program. Two studies, the first by Rothenberg et al. and the other by Ricking and Booth, provide definite statements useful in distinguishing between professional and nonprofessional tasks.<sup>1, 2</sup> These ground-breaking studies do not, however, attempt to enunciate distinctions between the *levels* of professional positions. In an article published in 1965, Downs and Delzell also emphasize the differences between professional and nonprofessional tasks.<sup>3</sup> In addition, they describe what librarians do at various levels, using examples from the universities of California, Michigan, and Illinois and the U.S. Civil Service Commission. The elements of position classi-

fication for librarians as presented in the Downs and Delzell article were useful in our preliminary planning at the University of Western Ontario. However, in terms of the present study, two major drawbacks were identified: (1) Because of the modified management by objectives philosophy of library management at the University of Western Ontario, such elements as "supervisory responsibility" had necessarily to be de-emphasized. Furthermore, provision had to be made for a team approach to problem solving, with emphasis on planning and development and with distinctions made between projects and programs. (2) The elements or factors used in the examples presented by Downs and Delzell were not always present in differing amounts in the position levels described in the present study.

The best report of a library position classification program to date is the article by Tompkins describing the method by which positions were classified at the University of Michigan.<sup>4</sup> Tompkins and her committee opted for the point rating system, a quantitative system that yields a numerical score which can be translated into a classification level. The principal advantage of such a quantitative approach is that it apparently develops a "precision of applicability," i.e., that it can be applied in a scientific manner.<sup>5</sup> Appearances may however, of course, be deceptive and "research results . . . show that less complex systems yield results almost identical with complicated systems. . . ."<sup>6</sup> Bearing in mind that the principal disadvantage of a quantitative system such as that used at Michigan is the amount of time required for its conception and implementation, one must decide whether the extra time and expense in terms of the relevant precision achieved can be justified. Tompkins notes that an average of thirty interviewer's hours was necessary to describe each position using this system for 105 positions! She notes further

that "twenty-one months after its inception, the committee held its forty-eighth and final meeting."<sup>7</sup> It was soon decided at UWO that, based on Tompkin's experience, we could not justify such an extended and costly program without more conclusive evidence that superior results would ensue. The factors used at Western do, however, bear some similarity to those selected for use at Michigan with the important difference that the management by objectives approach at UWO precluded using some of the traditional yardsticks of position classification. For example, Michigan's "independence of performance" factor is developed through the five grades in terms of freedom from supervision, whereas the "independence and freedom of action" factor in the present matrix is developed in terms of systems constraints (projects, programs, and objectives) as these relate to individual positions. Another example involves problem solving and decision making. Here Michigan's classification assumes a larger number of problems which become more complex at the higher end of the scale. While this is undoubtedly true of most organizations, the introduction of management by objectives diffuses the locus of complex problems through many levels. What determines the level of a position in the present study in this regard is whether general participation in problem solving is required or whether a position carries specific responsibility for problem solving and planning and whether for tasks or projects, programs or policy, and ultimate approval or veto.

#### IDENTIFYING AND DEFINING THE FACTORS IN POSITION CLASSIFICATION

##### *General Factors*

The general attributes which distinguish all professional positions are four in number. Basic academic qualifications form one such factor. The basic library science degree represents basic



professional expertise and potential for promotability (in the case of a position requiring a professional specialist who is not a librarian, the appropriate degree would be the equivalent of the B.L.S. or M.L.S.). Arguments concerning the quality of relevant professional education do not apply in this instance, because no other generally accepted baseline for professional expertise has thus far been developed. However, as with all the general factors in this approach, the requirement of basic academic qualifications cannot *alone* be considered as justification for ranking a position as professional.

Judgment is a second general factor. Judgment, in the professional context, involves the application of expertise to the reasoned and defensible analysis of alternatives in order to determine a preferable course of action. A position must require frequent application of such expertise in order to be regarded as professional. It is recognized, of course, that some degree of judgment is concomitant with survival, on the job or off it; but, whereas the clerical's exercise of judgment is normally circumscribed and assisted by established routines, the judgment of the professional should be less dependent upon precedent than upon comparative knowledge and expertise. Unless decision making involving the adjudged choice between alternatives as described above is present as a normal element of a position, the need to exercise the basic expertise already specified as the rationale for including basic academic qualifications as a general factor is absent. Judgment, therefore, is that factor which exercises the latent force of relevant substantive education.

Client relationships, the third general factor, are a hallmark of all established professions. Without such relationships, which carry with them a mentor connotation, professional expertise is not utilized on a one-to-one service basis. The

client relationship, embodying as it does interpersonal change and enrichment, has indeed traditionally been one of the qualities distinguishing professional expertise from creative skills. Once again it is important to realize that the client relationship is a general factor in part because it implements other general factors. The requirement of client relationships in a position does not *alone* rank that position as professional.

Voluntary involvement in professional activities is a general factor common to all professional positions. It would be unusual to find such involvement as a formal requirement of a position; but, leaving aside the question of the adequacy of professional associations, it is highly unlikely that professional development in a position can occur without the type of formal external contacts represented by professional associations and other forms of continuing self-education. A position that does not involve from time to time external professional activities as an enriching and necessary element is unlikely to be a viable professional position in terms of the other general factors discussed above.

All the preceding factors—basic academic qualifications, judgment, client relationships, and involvement in professional activities—are general to all professional positions. Their joint presence distinguishes such positions from support positions; but alone they are not viable instruments for ranking positions because they are not themselves capable of being conceived of on a consistent growth continuum. Thus, for example, while additional academic and professional degrees represent evidence of additional expertise and may indicate suitability for promotion, the minimum number of degrees required by a position—stated as such and without reference to the degree of expertise required by a position—is not a ranking factor because it is a given constant.



(By analogy, we may determine that a lamp must give light to be a lamp; but we cannot usefully extrapolate from this general factor to rank all lamps by the degree of light they give. An object that does not give light, we may agree, is not by definition a lamp, but for certain purposes a dim light may be much "better" than a bright light.)

Ranking factors are context-oriented; whereas general factors are arbitrary. Thus, *scope* for judgment may increase as the scope of responsibility and accountability increases; but the *quality* of judgment is an unrankable constant. The same is true of client relationships, although the *level* of external contacts can, as we shall see, be used as a criterion for ranking.

#### *Ranking Factors*

The development of ranking factors is based on four assumptions. One we have already noted—that medium and large-sized organizations do need the stability provided by hierarchical ranking. The second assumption is that ranking must be based upon demonstrably relevant factors which can be severally extended on a logical continuum. The third assumption is that arbitrary administrative designations are not, as such, demonstrably relevant to the objectives of modern library organizations, and that such designations are not viable over an extended continuum. The fourth assumption is that ranking factors for professional positions must relate to those general factors which identify the positions as professional.

The degree of expertise required in a position to exercise assigned responsibility and accountability is a ranking factor. At the base level this factor equates to the basic academic qualification character upon which it rests. Before the expertise factor can be developed, therefore, it must include the variables of relevant in-service training, experience, professional activities, and

further formal education. The addition of these variables, capable of quantitative and qualitative analysis, provides the means of raising this ranking factor through the continuum. The greater the quantity and quality of relevant expertise required by a position, the greater the value of that position to the organization and the higher the rank given to the position. In short, with respect to the quality of expertise, a basic principle of the approach developed in this paper is that the highest classification shall be reserved for those positions requiring the expertise necessary to exercise the broadest scope of responsibility and accountability.

This principle in no way conflicts with current management trends toward more participative "team approaches" in decision making and the implementation of library objectives. As responsibility and accountability are diffused throughout a system, expertise is at the same time diffused and increased and more positions will receive a higher ranking in this respect. Moreover, it should be stressed that management expertise is itself a legitimate form of professional expertise (albeit perhaps less recognized in libraries in terms of formal education than in many other types of institutions). Thus a position requiring advanced administrative expertise would rank high in terms of expertise, as would a position requiring advanced bibliographical and subject expertise.

The independence and freedom of action inherent in a position is a second ranking factor. The *de facto* "span of discretion," which is a quantitative temporal measure of the degree of independence and freedom which the organization can accord to a position, is a viable indicator of the level at which the position should be classified on the continuum.

The level of formal external contact which a given position requires to be ef-

fective is a ranking factor in classifying the position. The importance of a sub-unit to the system of which it forms a part is largely determined by the degree of effective formal communication between the unit and the system. This is true whether the unit is a department of a library in communication with the library, or a library in communication with the parent body or system of which it is a part. Clearly, however, the importance of a communication is directly related to the expertise, the significance of error, and the span of discretion involved on the part of both the sender and of the receiver. Thus a necessary formal communication between a university president and member of a library staff has broader organizational implications (and hence more "importance") than has a similar communication between two subordinate positions. The responsibility for communication with the president inherent in a position places that position in a higher rank than that of a position charged with lower level communications.

Inherent in the level of formal external contact is the level of responsibility and accountability for any position, which can be determined qualitatively largely by the scope and depth of the responsibility involved and by the significance to the organization of an error made at the level of involvement in question. The greater the significance of error the higher the level of responsibility. In one sense, it is true, the significance of error reflects the positional impact upon the organization; but the stress is upon the degree of expertise required to avoid the error, as well as upon the hierarchical freedom from constraint. *De facto* rather than *de jure* responsibility and accountability assist in measuring the level of external contact.

Formal external contact is the ranking counterpart of the general factor of

client relationships, the latter being, however, normally informal, self-initiated, and characteristic of all levels of professional performance. It is important to note, moreover, that formal external contacts must be *necessary* to the achievement of positional objectives in order to be considered a ranking factor, and that such contacts must demonstrably draw upon the appropriate level of expertise.

Planning and development form a ranking factor. The degree to which a position necessarily carries with it the need to plan and to develop programs is an indicator both of required expertise and of span of discretion. All professional positions should, as we have noted, require the use of judgment; but greater judgment in the use of comparative data is required in the development of programs than of tasks. Indeed, in terms of planning and development, stress should be laid as much upon the importance to the organization of the projects planned and upon their complexity as upon the planning and development activity itself. In assessing this factor, therefore, the distinction between tasks (which are normally single operations involving either repetition or a short span of discretion) and programs (which consist of the relating of a number of tasks) is important. The latter category presumably involves greater expertise, span of discretion, judgment, and significance of error.

Supervision is a ranking factor, though not if interpreted merely in terms of the number of personnel supervised. The number of individuals directly supervised by a position (span of control) is not an indicator or relative rank since the span of control normally shortens as the responsibilities of those supervised increases. The number of individuals *indirectly* supervised may, however, be of some value in assessing the rank of a position; but this criterion, in fact, relates more to the arbi-

trary administrative scheduling of a hierarchical position than to its inherent value to the organization. Nevertheless, because this factor has quantitative value in a hierarchical system; because it will undoubtedly continue for some time to retain a traditional aura; and because it normally reinforces other ranking factors such as independence (span of discretion) and level of formal external contact (significance of error), supervision has some value in ranking a position.

### THE MATRIX

The above four general and five ranking factors may be used to form the vertical axis of a matrix (Figure 1). The general factors do not appear as such on the vertical axis of the matrix because, although implicit in many of the ranking factors and though necessary to the "professional" nature of a position, they have little or no ranking capability. The five ranking factors do appear on the vertical axis, however, because they can be used to rank positions, although "supervision" may at times be regarded as "not applicable."

The horizontal axis of the matrix

specifies the positions in the classification—Professional I, Professional II, Professional III, etc. The development of a ranking factor must be capable of being plotted along this horizontal axis (a necessary characteristic of any ranking factor since those factors operate on a continuum and can be divided horizontally at any number of convenient, and clearly defined, points). Thus, to take expertise as an example, it remains discretionary within the organization to determine "how much" expertise is required within one class of position and at what point on the continuum the expertise involved transcends a given class and raises the position in question to a higher class. Conceivably an organization could choose to incorporate only two classes of positions (or possibly only one), in which case the span of expertise demanded within each position class would be very wide. The only caveat to the above is, of course, that the lowest category of professional positions cannot include criteria "below" those specified in the description of the general factors which establish the professional nature of all positions.

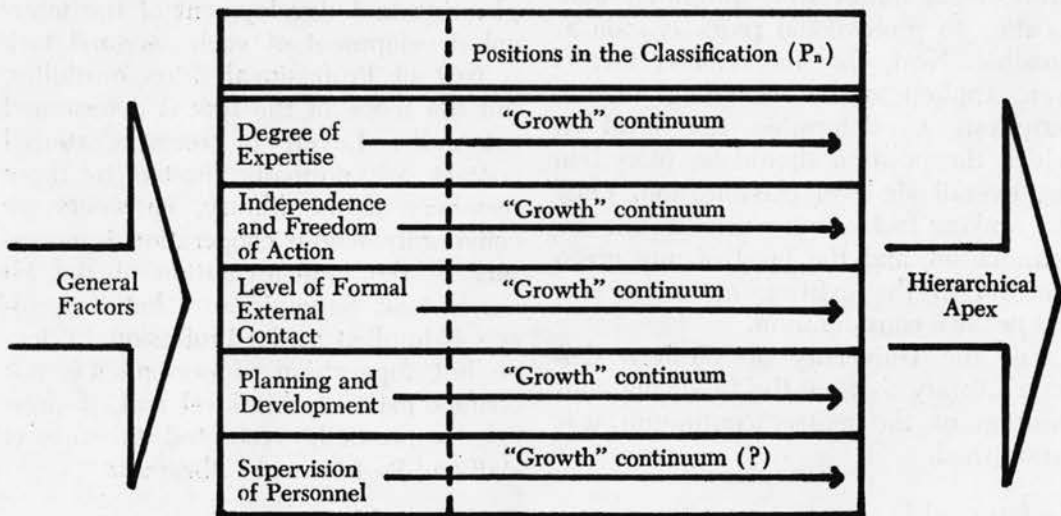


Fig. 1  
The Position Classification Matrix



APPLICATION OF THE MATRIX TO  
THE UNIVERSITY OF WESTERN  
ONTARIO LIBRARY SYSTEM

The factorial principles underlying the matrix, when applied to the University of Western Ontario Library System, led to the development of the five *ranking* factors on a six-level continuum (Table 1). As has been indicated earlier, the four *general* factors in the schemata were used to determine the suitability of a post for inclusion as a professional position. The first task of the consultants was, therefore, to obtain job descriptions for all positions classified as "professional" by the UWO Library System, the questions pertaining to the descriptions being prepared and pretested by the consultants and the answers being supplied by the incumbent in conjunction with the relevant assistant director or department head. Those posts which could not, by application of the four *general* factors, be considered "professional" were then "declassified"; but it was made clear to the incumbents that the *position* and not the *person* was at issue. No individual was "demoted" because the position held was declassified, and professional librarians found to be performing non-professional duties were promised reallocation to professional posts as soon as possible. Next, the five *ranking* factors were applied to the remaining job descriptions to determine the level at which the position should be placed in the overall six-level classification. Only the ranking factors were used in this determination, and the level of any given position in the existing hierarchy was not *per se* a consideration.

For the University of Western Ontario Library System, the following codification of the matrix continuum was established.

#### *Professional 1*

This level predicates, as do all other

levels, the four general factors—academic qualifications, judgments, client relationships, and voluntary involvement in professional activities—required for inclusion of a position in the schemata. However, grade 1 positions carry minimal responsibility and accountability, are subject to frequent supervision so that there is a minimal span of discretion, do not normally involve levels of formal external contact, do not involve *primary* responsibility for planning and development, and do not involve the supervision of professional personnel or independent projects. Professional 1 positions are professional positions and should not routinely include duties normally assigned to support staff; but this level is regarded as a stepping-stone or internship for higher levels and *is not to be considered as a career grade*.

#### *Professional 2*

This level, the first professional career grade, is characterized by a distinct though limited span of discretion and a demonstrable expertise. Positions in this grade carry with them the responsibility and authority for the implementation of a specific task or tasks, though the scope of the task(s) is limited. The planning and development of the internal development of each assigned task is part of Professional 2 responsibility, but the scope of the task is determined externally. Levels of formal external contact are normally limited to those members of the library, university, or community whose cooperation is necessary to the implementation of the assigned task. Supervision of limited projects is implicit at the Professional 2 level; but supervision of personnel is not characteristic of this level and, if present, is normally restricted to support staff and Professional 1 librarians.

#### *Professional 3*

This level is characterized by the



strength of the supervision factor, either of projects or personnel. With respect to personnel, Professional 3 positions carry the responsibility for the direct supervision of support staff and of Professional 1 and 2 librarians who are normally the largest proportion of a library's personnel complement. Accountability is to a sharply decreased sector of the hierarchy, and span of discretion is correspondingly increased. Planning and development become relatively important at this level because of the necessity for integrating projects and personnel. Professional 3 positions are normally primarily concerned with internal administration; and formal external contacts, when present, are with the level of the library, university, and community which has decision-making functions. The degree of expertise required to exercise assigned responsibility and accountability at the Professional 3 level must be such that personnel or project units of complexity and considerable magnitude can be handled independently and successfully.

#### *Professional 4*

This level is characterized by the strength of the external contact factor. Professional 4 librarians are responsible for effectively presenting the library to policy advisory levels of the university and of the community and for assimilating external considerations into the library system. The degree of expertise necessary to meet this responsibility may be found either in management skills, highly developed professional competence, or specialized subject knowledge. Major project management not involving subordinate personnel, as well as the management of major personnel units, meets grade 4 requirements. The span of discretion for this level may be limited only by annual reports to Professional 5 or 6 personnel, and Professional 4 responsibility for planning and de-

velopment may include the initiating of conceptual schemata.

#### *Professional 5*

This level is characterized by a responsibility for the broadest areas of homogenous activity and by direct accountability to sixth level positions. All ranking factors reach their culmination at Professional 5; and the general factors distinguishing professional positions should be present in an unusually high degree to develop fully the element of expertise. Supervision at this level is to be interpreted as coordination.

#### *Professional 6*

This level is characterized as the initial repository of the authority and responsibility delegated by the university to the library. Accountability at this level is to individuals or bodies external to the library. Professional 6 span of discretion is subject only to the regulations of the parent body, and the application of expertise rather than the expertise itself distinguishes this grade from the Professional 5 level.

### ADMINISTERING THE INSTRUMENTS

The basic instruments in the application of the matrix discussed above to the professional staff of the UWO Library System were the codified matrix and the job description questionnaire. The codification was discussed fully with the UWO Library System administrative group in order to ensure that the application would realistically reflect any constraints of the UWO system. The administering of the questionnaire was equally carefully prepared for, both by the administrative group and by the consultants. As has already been indicated, the questionnaire was pretested and modified where necessary. The modifications were then discussed with the administrative group. An orientation session was held with the profes-

TABLE 1  
CLASSIFICATION FOR PROFESSIONAL POSITIONS

	P1	P2	P3	P4	P5	P6
Degree of Expertise	B.L.S. or basic M.L.S. or its degree equivalent. No experience required.	Normally requires two years professional experience and ability to function independently and effectively in client relationships, to supervise small projects and/or small service units.	Normally requires the equivalent of five years at the grade 2 level and specialization in management skills, subject knowledge, or a very high level of professional competence. Advanced degree not required but often important to carry conviction with clients, colleagues, and external contacts.	Requires equivalent of five years at the grade 3 level and the advanced degree in order to carry conviction in effective external contacts and highly developed professional competence necessary to give effective advice.	Requires varied and synthesized experience leading to a comparative knowledge base. Requires the advanced degree.	Requires the equivalent of the grade 5 level including senior administrative experience in a comparable academic library which demonstrates superior skills in planning, organizing, controlling, communicating, and in human and public relations.
Independence and Freedom of Action	Time span of discretion is minimal. Since emphasis is on professional growth and learning, frequent review of work with clients and/or projects is required. Independent projects with scope defined externally may be assigned.	Time span of discretion is great with respect to client relationships within policy limits but with respect to projects, is limited to completion of the project. Judgments required involve some intangibles but are usually made on the basis of knowledge and experience.	Time span of discretion is great with respect to client relationships but with respect to projects and project supervision is limited to duration of programs. Judgments required involve intangibles present at the grade 2 level but in addition the integration and coordination of programs and job elements.	Independence and freedom of action is limited only to the degree that the unit, program, or project concerned involves other jurisdictions.	Independence of action is limited only by the stated objectives of the library system.	Independence and freedom of action is limited only by the regulations of the parent body.
Level of Formal External Contact	Normally does not involve formal levels of external contact.	Normally limited to those members of the library, university, or community whose cooperation is necessary to the	Normally limited to those members of the library, university, or community whose cooperation is necessary to the	Responsible for effectively presenting the library to policy advising levels of the university and of the community,	Responsible for initiating contacts and for coordinating interlibrary cooperation, as well as representing the	Represents the university library system to other chief librarians. Formal reporting relationship is to the appropriate

Planning and Development	General participation in planning and development is assumed.	implementation of the assigned task or project.	implementation of the program.	and for assimilating external considerations into the library system.	university library system.	university senior administrator.
	Plans and develops assigned tasks whose scope is defined externally.	Independently plans the internal integration of programs and personnel.	Contributes to policy planning and development at the library system level with particular responsibility for one functional unit.	Coordinates policy planning and development at the library system level.	Carries ultimate responsibility for planning and development. May alter or veto decisions made at the grade 5 level.	Minimal.
Supervision of Personnel*	Does not involve the supervision of professional personnel.	If present, is normally restricted to supporting staff and grade 1 librarians doing primarily routine tasks. Supervises projects.	Considerable supervisory responsibility at support staff and professional staff levels; supervises tasks of both routine and discretionary nature.	More concerned with personnel management and personnel policy than with supervision. Supervises the supervisors.	Supervision is restricted to personal staff.	

\* In certain specialist positions "supervision of personnel" as a ranking factor does not apply.

sional supervisors involved to ensure that the purpose of the questionnaire and the questions themselves were understood. Members of the UWO Library System professional staff were invited to meet individually with one of the consultants to discuss the filling out of the questionnaire, and a number of staff did so.

In addition to a summary job description, including percentages of time spent on principal duties, the following are selected examples from the twenty-three item questionnaire:

Indicate the kind and level of educational requirements and professional experience *necessary* to perform effectively in your position. Why?

To what extent does your position *require* regular contacts with library personnel outside of your own department or unit? With university personnel outside of the university library?

Illustrate the types of problems which you are expected to deal with on your own and those which you would refer to a higher authority for solution.

Give an illustration of the type of long-range policy planning normally associated with your position.

Are the duties performed by the people you supervise *primarily* of a routine or of a discretionary nature? Give examples.

After all of the questionnaires had been filled out and approved by the supervisors, each consultant took a group of responses and analyzed them in terms of a grid profile sheet, composed of the four "general" and five "ranking" factors as shown in Table 1. The consultants then exchanged groups and conducted independent reevaluations. For most ranking factors there were at least three questions which dealt directly with each; but one factor, "supervision of personnel," was assessed in only two questions, and one factor, "degree of expertise," had nine questions specifically related to it.

The use of the responses to several questions as "internal checks" in the plotting of ranking factors on individual profile sheets provided a cross-check on internal consistency; a means of "getting at" the factor in a variety of ways; and an elimination of any bias against a functional or service unit of the library that might have existed in any single question.

For each position, the question responses relating to each factor were analyzed and a check mark was placed in the appropriate box on the individual profile sheet. In cases where it was not clear how the presence of a factor should be ranked (e.g., whether or not a job ranked as a Professional 2 or Professional 3 according to a given factor), check marks were made in both boxes for the same factor.

The two consultants then compared their sets of profiles. In most cases agreement was achieved on the profiles. In those cases where disagreement occurred (usually because of ambiguous information in the response to the questionnaire) the profile was put aside for a discussion with the administrative group. In the course of the project, care was taken constantly to ensure that the objective was to rank jobs and not individuals. In this connection, one of the major problems identified was the tendency for respondents to view such elements as academic qualifications and experience in terms of their own achievements. The result was a variation in a factor such as "degree of expertise" among groups of librarians doing what appeared to be the same type of work. Because it was often unclear whether this variation was justified in terms of job requirements, these cases were noted for discussion with the administrative group. Other ambiguities and contradictions were handled in the same manner.

Next the consultants met with the library system administrative group to review the profiles and the preliminary

classifications, to view the reclassified positions relative to each other, and to discuss and decide on difficult cases. After several meetings, all the positions were discussed and consensus reached. As a result it was possible to add up the check marks vertically and assign a position classification to each job. The classifications assigned formed the basis of subsequent administrative action.

#### SUBSEQUENT ADMINISTRATIVE ACTION

After the consultants had met their responsibilities by submitting a rationalized position classification plan for the UWO Library System, a meeting of the professional librarians was called by the chief librarian to review each of the steps in the revision of the classification program. Both consultants were present to explain the rationale of the revised classification program and to answer questions concerning the factors, the position classification chart, and the use of the grid form in classifying positions.

One purpose of the meeting was to give a thorough explanation of the review process. Another was to present and discuss an *appeal procedure* which could be utilized by any staff members who did not agree with the classification of their position. This procedure includes four steps.

1. The individual should discuss the revised classification of the position with the appropriate assistant director or chief librarian within seven days following notification of the classification of the position.
2. If the situation is not clarified to the satisfaction of the individual in step 1, the individual should contact the chief librarian within seven days and request that the classification of position be reviewed by the Job Evaluation Advisory Committee, composed of three members elected by the pro-



fessional staff, three assistant directors, and the chief librarian who serves as chairman.

3. The chief librarian reviews the recommendations and supporting documentation of each committee member, and makes a decision.
4. If the decision in step 3 is not acceptable to the individual, the staff member should contact the chief librarian and request that the position be reviewed by the university administration.

In several instances staff members indicated that the job evaluation questionnaire had not elicited a description of one or two unique features of their positions, or that they had neglected to provide detailed information on the questionnaire. As a result, the consultants were asked to interview the individuals who had expressed concern and to recommend any necessary changes.

The *salary scale* for the revised classification program includes five levels (Librarian I to Librarian V), with Librarian I as the entry point for beginning librarians without previous experience. The remaining four levels (Librarian II to Librarian V) are career grades. A minimum salary, which is externally competitive, is determined for each of the five levels. *A maximum salary is stated for Professional 1 and 2, but salaries are open-ended for the remaining levels (Professional 3 through 6).*

#### SUMMARY AND CONCLUSION

The purposes of the above classification program were, first, to determine the relative value of each position in relation to other professional positions with the aim of achieving internal consistency; second, to evaluate each position and not the individual holding the

position or the individual's performance of the position; and, third, to develop an externally competitive salary scale. Consultants and library staff learned a great deal, including the difficulty of achieving internal consistency, of trying to separate the person from the position, and of recognizing individual differences and perceptions.

Each academic library is constantly changing: the organizational arrangement is continually modified; the level of expertise and responsibility for professional positions alters from time to time. The classification of professional positions must, therefore, be reviewed continuously and kept up to date as positions change in order to keep pace with changing needs and requirements. This paper has provided a case study of one such library's attempt to keep pace in terms of a rational position classification—acceptable to the library's community as a whole and justifiable to the library's professional personnel.

#### REFERENCES

1. Leslie Beth Rothenberg and others, "A Job-Task Index for Evaluating Professional Utilization in Libraries," *Library Quarterly* 41: 320-28 (Oct. 1971).
2. Myrl Ricking and Robert E. Booth, *Personnel Utilization in Libraries: A Systems Approach* (Chicago: American Library Assn., 1974).
3. Robert B. Downs and Robert F. Delzell, "Professional Duties in University Libraries," *College & Research Libraries* 26:30-39 (Jan. 1965).
4. Marjorie Tompkins, "Classification Evaluation of Professional Librarian Positions in the University of Michigan," *College & Research Libraries* 27:175-84 (May 1966).
5. Ibid., p.176.
6. David W. Belcher, *Compensation Administration* (Englewood Cliffs, N.J.: Prentice Hall, 1974), p.145.
7. Tompkins, "Classification Evaluation," p. 182.

## Using the "Guidelines": A Study of the State-Supported Two-Year College Libraries in Ohio

*A study of the two-year college learning resources centers in Ohio indicated that the "Guidelines for Two-Year College Learning Resources Programs" are a useful tool for providing basic theory, furnishing a set of objectives, and stimulating research in evaluation of performance.*

THE "GUIDELINES FOR TWO-YEAR COLLEGE LEARNING RESOURCES PROGRAMS,"<sup>1</sup> approved by the ACRL Board of Directors in June 1972, contains the following statement of purpose:

They have been prepared to give direction to two-year colleges desiring to develop comprehensive Learning Resources Programs. This document is designed to provide criteria for information, self-study, and planning.<sup>2</sup>

The new "Guidelines" have moved away from quantitative criteria to general descriptions of organization and objectives and services, and are in direct contrast to the specific recommendations set forth in the "Standards for Junior College Libraries."<sup>3</sup> The introductory statement of the "Guidelines" indicates that they are "diagnostic and descriptive."<sup>4</sup> James Wallace has defined diagnostic standards as "based upon a model of the conditions existent in libraries (known to be providing superior ser-

vices) to be used by other institutions in self-evaluation."<sup>5</sup>

The "Guidelines" were a long time in creation, from the first criticism of the 1960 standards by the American Association of Junior Colleges (which was not consulted in their development) to the final publication. A joint committee from ALA and AAJC met in 1964 and 1965. Although a draft had been prepared by 1968, the imminent publication of the *Standards for School Media Centers* called the committee's attention to the need for involving the Association for Educational Communications and Technology. As a result of this cooperation, the final document describes a learning resources center which provides all forms of information and the technology for presenting information to students. Changes in the various drafts often seemed to reflect what was happening in the development of junior college libraries.

The introduction to the "Guidelines" also states:

Many aspects of traditional library and audiovisual services in the two-year college and the integration of these services have not been studied adequately for long-range projection of

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needs. Until such studies have been made these guidelines may serve as the foundations for research and for experimentation in organization, structure, and services.<sup>6</sup>

In order to evaluate their applicability, the "Guidelines" were chosen as the theme for the second annual Branch Campus Mini-Conference on May 10-11, 1973. This conference of librarians from branch campuses of the state-supported universities in Ohio was held at the Middletown and Hamilton campuses of Miami University. Louise Heidler, head librarian of the Hamilton Campus, and Virginia Brown, head librarian of the Middletown Campus, served as joint leaders. The conclusions of the discussion and reaction groups at the conference indicated the need to apply the "Guidelines" in a selective manner. Since the branch campuses may vary organizationally from the type of institution envisioned by the "Guidelines" authors, the conference participants indicated they would use the "Guidelines" primarily in two ways: (1) to persuade administrators, both inside and outside the library, of the need for comprehensive learning resources services and (2) for self-evaluation of their centers.

Another conclusion of the group was that, in order to study the degree to which the institutions conform to the "Guidelines," the latter need to be translated into measurable criteria and quantitative averages for groups of institutions. A search of the literature, as well as practical experiences within libraries, also reflect this need. Ottersen's bibliography on standards for evaluating libraries lists several studies using or recommending quantitative measures or check of books against standard bibliographies.<sup>7</sup> Many of the studies establish ratios for size of collection per number of students and number of courses or degrees offered. Some studies

suggest elaborate formulas such as the Clapp-Jordan formula, and several suggest comparative measurements of similar libraries.<sup>8</sup>

One of these studies, which has been used by some of the two-year institutions in Ohio, is James S. Spencer's article, "Projection of Standards for the Multi-Media Center," a report on an examination of the public junior college libraries of Illinois and a description of their status in quantitative terms.<sup>9</sup> Arranged in a series of tables indicating size of collection, nature of collection, space, personnel, and financial support, this report can be used to produce averages and to identify similar institutions with which any individual library may be compared. While the study included some quantitative recommendations, it also pointed up the need for a definition of the structure and functions of a complete multimedia center.

#### DESIGN FOR THE STUDY

In an attempt to provide a self-evaluation tool based on the "Guidelines," the authors distributed a questionnaire to the librarians of the state-supported two-year college libraries in the state of Ohio. This instrument presented the statements from the "Guidelines," each followed by a series of questions designed to elicit quantitative data. While following the format of the "Guidelines" sometimes made it difficult to group the information homogeneously, the relationship of the specific guideline to the question or questions was made explicit. For example, the questions following guideline VI. A., "Co-operative arrangements for sharing of resources are developed with other institutions and agencies in the community, region, state, and nation," were designed to yield statistics on the number of interlibrary loans in 1972-73 by libraries in the same university, in cooperative systems, and with the entire library community. This provided the li-



brarian with a translation of the "Guidelines" statement into practical terms and also made it possible for the authors to compare institutions with one another as to whether, and to what extent, they were following the guidelines.

As the first step, the questionnaire was tested in five of the two-year college libraries and was modified. Since the instrument contained sixty-five involved questions, the librarians at all of the institutions were polled by postcard to determine (1) if they would be willing to complete the form and (2) who was the proper person to provide this information. This procedure resulted in a good return of the questionnaire, with twenty-three of twenty-six responding.

#### ANALYSIS OF RESPONSES

##### *Goals*

The first section of the "Guidelines" calling for a clear definition of the goals and objectives of a learning resources center (LRC) seemed to serve its purpose. In this study many of the institutions proved to be traditional print libraries providing a collection of materials for circulation. A majority of the LRCs had statements of their objectives and, in the broadest sense, met the guidelines requirement to "improve learning" and to be "an integral part of instruction." However, when these statements were interpreted by the questionnaire to define a role in curriculum planning, selection of the appropriate media for instruction, and presentation of independent study programs, most of the LRCs were not directly involved.

Also, the broad spectrum of possible services which an LRC might provide were not part of the service in most institutions. Half of them did provide auto-tutorial carrels of some type, and a third had learning laboratory services and telecommunication production, but almost none of them provided computer services, campus duplicating (oth-

er than library photocopying), printing services, or dial access services which were items the "Guidelines" had suggested. The institutions studied seemed to fall across a broad spectrum from a complete learning resources program in one case to a basic library collection in another. It is possible that those at the latter end of the spectrum should be designated libraries rather than learning resources centers, and the "Guidelines" may need to reflect these differences.

##### *Organization of the Learning Resources Center*

The second section of the "Guidelines" is designed to define the organization and administration of a learning resources center in relation to its institution. Responses indicated that these Ohio LRCs are well integrated into the organization of the local campuses and the larger academic units and are accepted as integral parts of their institutions. The head of the LRC, in most cases, was responsible to the head of the campus although several reported to the director of the university library in a branch campus situation. This variation may be fairly unique and a reflection of the fact that many of Ohio's junior colleges are branches of a university.

Most of the LRC heads had faculty status and rank and served on committees both for the campus and for the main campus where that situation existed. Nearly all had advisory committees made up of faculty and students, but very few had any clerical and nonprofessional staff involved in this way.

Many of the LRCs did not have organization charts to define external and internal relationships, but a majority had job descriptions and provided meetings or other means for involving all staff in policy and procedure decisions. They seem to have accepted the responsibility for "dissemination of information" as called for in the "Guidelines" and produced statistics, annual reports,



bibliographies, new book lists, handbooks, and publicity releases. One of the advantages of a self-evaluation against the "Guidelines" may be the production of such documents, statements of objectives, organization charts, and written policies and procedures in those institutions which lack them.

While the "Guidelines" call for centralized administration of all learning resources services, not all of the LRCs examined had complete control of learning equipment and materials. More than one-third of them had neither the control nor any records for the location of learning equipment. This seemed to be an indication that separate media centers existed on these campuses. Most of the LRCs did, however, control and keep catalogs of all learning materials. In some cases these may be only print materials.

The "Guidelines" have a statement covering multicampus situations. In these situations all of the Ohio LRCs seemed to share materials, and about half shared equipment; but the sharing of services, such as telecommunications or a dial access listening service, was not as common. A substantial majority did, however, meet regularly with main campus representatives and with other branch campus representatives, so it appeared that they may have shared an even more important asset, the expertise of personnel. This is not emphasized in the "Guidelines" and may be an area for amendment. In the multicampus situation, the number of professional librarians and media specialists on a branch campus is often limited. It would seem to be especially important that the many experienced and well-qualified professionals on the main campus be consulted regularly by branch campus personnel.

#### *Extent of Commitment to Program Budgeting*

The section of the "Guidelines" de-

voted to the budget for learning resources services yielded rather confused results. Whether this confusion exists in the "Guidelines" or in the interpretive questions of the test instrument is not clearly evident. The "Guidelines" seem to be committed to program budgeting and a systems approach and yet also want line items clearly defined. The LRCs studied were in the same position, seemingly dedicated to making purchases based on curricular needs but also quite understandably spending the amount allotted in any line item. An attempt was made to determine if purchases were on a "systems approach" and using "valid criteria" by offering the option of answering "yes," "no," or "sometimes" to questions regarding the criteria for purchasing such as performance, cost, and availability of service. It was assumed that if purchases were made to meet the needs of a program, most of these answers would have to be "sometimes," since the needs of the program would take priority over other criteria. Since the answers were overwhelmingly "yes" to all criteria, it must be assumed either that the "systems approach" is not used or that the questionnaire was improperly worded.

This may be a very important area for further study. A question designed to test the commitment to a program or systems approach would by extension tell how much an LRC was involved in designing the best material and technology for a unit of instruction. The "Guidelines" seem to call for the LRC to be an integral part of the instruction program rather than a warehouse on which the teaching faculty could call for material and equipment, and responses left this in doubt.

The overall response to this section did indicate that the Ohio LRCs have a fair measure of freedom in controlling their own budgets and that they are exercising this control in a responsible manner.

### *Personnel*

The section of the "Guidelines" entitled "Instructional System Components" defines the nature of its personnel. Only three of the LRCs did not require a master's degree of some kind for the head of the LRC. Since sixteen of the LRCs required the M.L.S. degree and only one called for either an M.L.S. or the M.S. in audiovisual education, this may also indicate that many of the LRCs are primarily traditional print libraries or have nonbook services as just one more element of service provided. A majority had additional professional personnel. However, in some cases this was interpreted as including people without a degree or on a joint appointment with classroom teaching. The professional staff had faculty rank, status, benefits, and responsibilities in a majority of the LRCs studied. However, the responsibility for advanced study, research, and publication was required in very few cases. The professionalism of the staff is recognized in committee assignments, time off for meetings, and released time for preparation of teaching assignments. The number of support staff varied widely, reflecting the wide variation in the size of the institutions studied.

The median salary for professional staff was \$11,214, which compares favorably with the national norms. Only two of the reporting institutions had professional personnel receiving less than \$10,000.

### *Adequacy of Physical Facilities*

The section of the "Guidelines" describing standards for the physical facilities for an ideal learning resources center was well met by these institutions and reflected the fact that most of the institutions are relatively new. They varied widely in size, from 1,000 square feet to 27,000 square feet. Nearly all reported that the head and other profes-

sional staff were involved in the planning. In only five, however, were they consulted about other areas, e.g., suitability of classrooms for use of media equipment.

In nearly all of the institutions, the LRC was centrally located and half provided flexibility for possible drastic changes in technology. Very few provided an area that could be opened for limited service and study. This could limit the number of hours of service if personnel budgets were cut or if the colleges ceased to be commuter campuses and wanted longer hours. The response to questions on the comfort features and availability of power sources was almost unanimously positive, again a reflection of modern buildings.

### *Measurement of Materials, Equipment, and Service*

In the sections on provision of materials, equipment, and services, the study took two approaches—one a quantitative measure of holdings and the other a measurement of the commitment to structured planning and policy and testing of performance. In the first approach a detailed list of the types of materials held was obtained (see Appendix). While it was possible to match holdings against the size of the student body, it was not appropriate to report this because of the small size of the sample and because so many of these institutions were relatively new, one only a year old. This correlation would be valuable if made on a broader basis including states such as California, New York, and Illinois where the commitment to junior and community colleges is of longer duration.

The second approach called for questions designed to find out if the planning for services was well structured. A question was asked if a written policy was available. For example, "Do you have a written acquisition policy provid-

ing for materials representing all sides of controversial issues?" Or to determine if a regular program was carried on to conduct one of the activities listed in the "Guidelines," such a question might be asked: "Do you have a regular, systematic program of repairing or replacing damaged materials?" It was felt that direct questions about the provision of certain materials or equipment would be suitable in some cases, but might often elicit an automatic "yes" response. Responses to these two types of questions seemed to indicate that the respondents felt they were meeting the standards of the "Guidelines" in most cases but that many were not doing this under a written plan or policy statement. However, the questions directed toward evaluation of services (e.g., "Have you conducted any research to determine what hours of opening your campus community prefers?") showed that not only were the services provided but also that there was a commitment to test the library user's response to library services. The responses also indicated that not enough research has been done on such areas as refusals of service on instructional equipment, delays in providing equipment, and delays in placing materials on reserve, but not necessarily a correlation with lack of service.

#### SUMMARY

The results of this study indicate that the "Guidelines" can be interpreted for use as a measure to compare two-year college learning resources programs and as a self-evaluative tool. The questions used in this study to interpret the "Guidelines" statements are but one way to create some quantitative averages.

As indicated, several areas of the

"Guidelines" were open to question. Will LRCs be completely integrated into the designing of the proper media for instruction, or will they serve as extended libraries providing all kinds of media and equipment but on the basis of meeting the demand of teaching faculty? While the "Guidelines" could serve a leadership role here, the actual development will depend on many factors outside of a learning resources center. In this study about one-third of the institutions seemed to have learning equipment under a separate agency. This phenomenon is probably even more common in two-year colleges of long standing. While the "Guidelines" call for a completely integrated program as most desirable, perhaps they should recognize also the need to measure performance in two separate agencies.

The quantitative measures obtained in this study, while valuable to the institutions in Ohio, would be more useful if the study were replicated on a broader basis. It would be appropriate for the Community and Junior College Libraries Section of ACRL or some other organization to take the responsibility for development of better interpretations and numerical measures to fit the general statements of the "Guidelines." A properly designed questionnaire could also stimulate two-year college librarians and media specialists to undertake more research on users' needs and performance measures.

The committee responsible for the "Guidelines" has done a thorough job in creating them. It would be a serious waste of time and talent if they are not studied and used effectively by two-year college administrators, librarians, and media specialists.

#### REFERENCES

1. "Guidelines for Two-Year College Learning Resources Programs," *College & Research Libraries News* 33:305-15 (Dec. 1972).
2. *Ibid.*, p.306.
3. "Standards for Junior College Libraries," *College & Research Libraries* 21:200-206 (May 1960).
4. "Guidelines," p.306.

5. James O. Wallace, "The Practical Meaning of Library Standards," in Irene Braden Hoadley and Alice S. Clark, eds., *Quantitative Methods in Librarianship: Standards, Research, Management* (Westport, Conn.: Greenwood, 1972), p.34.
6. "Guidelines," p.306.
7. Signe Ottersen, "A Bibliography on Standards for Evaluating Libraries," *College & Research Libraries* 32:127-44 (March 1971).
8. Verner W. Clapp and R. T. Jordan, "Quantitative Criteria for Adequacy of Academic Library Collections," *College & Research Libraries* 26:371-80 (Sept. 1965).
9. James S. Spencer, "Projections of Standards for the Multi-Media Center," *Illinois Libraries* 51:474-88 (June 1969).

## APPENDIX

SURVEY OF TWENTY-THREE TWO-YEAR COLLEGES IN OHIO.  
 INFORMATION ON HOLDINGS, STUDENT BODY SIZE, AND LIBRARY SERVICES

	Range	Average
Volumes added to the collection during FY 72/73	1,000-9,315	3,336
Total volumes held at the end of FY 72/73	1,682-59,762	29,382
Serials (bibliographic volumes)	60-4,354	1,965
Reels of microfilm	223-6,963	2,992
Pieces of microfiche	7-5,070	1,459
Other microforms (pieces)	Response not significant	
Periodical titles	92-3,305	520
Reference books	270-15,000	2,948
Newspaper titles	0-18	11.5
Government documents	Response not significant	
Phonodiscs	147-2,318	691
Audiotapes (includes reels, cassettes, 8 track, etc.)	3-3,615	589
Films (includes 8mm, super 8 and 16mm, etc.)	1-383	49
Filmstrips	10-1,040	157
Filmloops	6-350	77
Slide sets	29-8,487	1,594
Kits (includes all combination kits of books, tapes, filmstrips, etc.)	1-349	59
Videotapes	1-40	14
Framed art prints	3-219	47
Maps	1-820	115
Number of drawers of vertical file material (assumes a twenty-eight-inch drawer depth)	0-35	16
Other (includes realia, globes, and other items not listed above)	3-1,091	237
Number of FTE students (average of fall, winter and spring quarters)	250-5,600	1,201
How many hours per week is your LRC open (regular session)?		
Range	50-77	Average 64
For how many of these hours is professional personnel on duty?		
Range	30-74	Average 51



## Periodicals and the Liberal Arts College Library

*College libraries are encountering increasing difficulties in meeting their readers' needs for access to periodical literature. Analysis of the periodical holdings of the ten liberal arts college libraries that created the ACM Periodical Bank shows that the "basic list" of periodicals that every such library holds is very short and that these titles are the ones from which the member libraries most frequently requested photocopies. The study also suggests that little or no use is being made of most of the periodicals on college library holdings lists.*

ONE OF THE MOST DIFFICULT TASKS faced by the college librarian is that of providing faculty members and students with access to the periodical literature that they seek. Rapidly rising subscription costs and the increasing numbers of periodicals being published are making the task more difficult each year. A major difficulty is that most college librarians have very meager information on the use being made of the periodicals that they are being asked to acquire. As a consequence, most such libraries are spending thousands of dollars each year on periodicals that no one reads, and still the needs of their readers for access to periodical literature are not being fully met. Studies of the periodical holdings of the liberal arts colleges that created the Periodical Bank of the

Associated Colleges of the Midwest and of the use they have made of the Periodical Bank, provide some useful insights into periodical use patterns and their relation to the periodical holdings of liberal arts college libraries.

The creation of the Periodical Bank was based on a number of assumptions. The member colleges of ACM are relatively small liberal arts colleges with similar curricula and, presumably, very similar needs for library services. It was assumed that these needs included in each library current subscriptions and back files for a basic core of something like 500 periodicals. In addition, faculty members and students needed ready access to a much larger list of less frequently used periodicals, a list so large that only the most affluent college library could hope to hold a substantial part of it. Ready access meant a more rapid service than could be provided by the usual interlibrary loan services, many of which were not available in response to undergraduate student requests. It was proposed that such a service be provided by establishing a central periodical library which would sub-

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*Blair Stewart is research director of the Periodical Bank of the Associated Colleges of the Midwest. The investigation reported here was supported in part by the U.S. Office of Education; however, the opinions expressed do not necessarily reflect the position or policy of that agency, nor should official endorsement by the office be inferred.*

scribe to, and maintain back files of, the less used periodicals not included in the basic list. The member college libraries would be connected with the central library by teletypewriter, and photocopies of desired articles would be promptly produced and sent to the ordering library by first class mail.

Inherent in the procedures adopted was the assumption that the role of a college library's service in the field of periodicals is to meet the expressed needs of its readers. Substantial sums are spent each year by every library in acquiring, processing, binding, and storing the periodicals designed to meet these needs. Some portion of this expenditure is for periodicals that are not used. The omniscient college librarian would presumably not acquire such periodicals, but would only acquire those periodicals, the use of which justified the cost and effort involved in obtaining and retaining them. It was assumed that it was not appropriate to levy a charge on the reader when the librarian had not been omniscient and had acquired periodicals that no one read, but could not provide direct access to some periodicals that were needed. Therefore, no charge was to be made for photocopies of articles to be supplied by the central library. The Periodical Bank service was to be fully incorporated into the libraries' normal provision of access to periodical literature, although screening procedures might be necessary to avoid abuse of the opportunity to obtain free photocopies of periodical articles.

The Periodical Bank was created in 1968 by the ten original members of the Associated Colleges of the Midwest: Beloit, Carleton, Coe, Cornell, Grinnell, Knox, Lawrence, Monmouth, Ripon, and St. Olaf. A central periodical collection was established with holdings of some 1,600 periodicals. Soon after the bank began operations in 1969, arrangements were made to use the periodical

collections of major libraries in the Chicago area to supplement the central collection. The cooperating libraries are the John Crerar Library, the Newberry Library, and the libraries of the University of Chicago, of the University of Illinois—Chicago Circle, of Northwestern University, and of the Central Serials Service of the North Suburban Library System. After approximately three years of service to the original member libraries, the bank began to offer its services to other academic and public libraries as associate members, but this study is confined to the periodical holdings of the ten original libraries and the service to them by the bank from September 1, 1969, to June 30, 1972.

#### MEMBER LIBRARY PERIODICAL HOLDINGS

Union lists of holdings of the ten member libraries were produced by the Periodical Bank in 1970 and 1971. Analysis of the union list as of June 1971 resulted in two surprises that indicated that some preconceptions held by the creators of the bank were invalid. It had been assumed that the lists of the periodical holdings of the member libraries were pretty much alike and that there was a basic list of perhaps as many as 500 titles that all of the libraries would have. As shown in Table 1, the "basic list" in fact consisted of only eighty-five titles. But eighty-five titles on ten holdings lists do not mean that all ten libraries were currently subscribing to these eighty-five periodicals. Included in the eighty-five was the *Kenyon Review*, which ceased publication in 1970. In addition, subscriptions to nine of these periodicals had been dropped by one library, and two of them had been dropped by two of the libraries. There were, therefore, only seventy-three periodicals to which all ten of the libraries were subscribing in 1971.

The second unexpected discovery was the large number of periodicals held by only one library—no less than 2,347 ti-

TABLE 1

PERIODICAL TITLES HELD BY MEMBER  
LIBRARIES, JUNE 1971, CLASSIFIED BY THE  
NUMBER OF LIBRARIES HOLDING THE TITLE

Number of Libraries Holding Title	Number of Titles Held
1	2,347
2	624
3	315
4	207
5	145
6	127
7	76
8	89
9	91
10	85
TOTAL	4,106

tles. Here again it is necessary to examine the nature of the titles held. It turns out that 350 of them were files of periodicals that had ceased publication, and 755 were remnants of currently published periodicals to which subscriptions had been dropped. This reduces the number of periodicals to which only one library was subscribing to 1,242. Even this seems a very large number when compared with the 73 titles to which all ten libraries were subscribing.

The 755 back files of periodicals to which subscriptions had been dropped and which were unique to a single library were over half of the 1,367 dropped subscriptions shown on the union lists of holdings. The existence of so many remnants of currently published periodicals raises a number of questions about periodical acquisition and retention policies. There are, of course, a number of different reasons for dropping subscriptions. The subscription rate may have become so high that continued subscription could not be justified, even for a periodical that was sometimes used. Shifts in curriculum or faculty interests may reduce or eliminate entirely the demand for a once useful periodical, or it may be decided that the original subscription was a mistake. Where the periodical has continuing usefulness, the retention of the

truncated back file may be justified. Where it is not being used, there is normally little excuse for its retention in a liberal arts college library. The back file may be salable, in which case a better use can presumably be found for the money it will bring. Loading the shelves with unused back files is, in any case, an expensive procedure.

The member libraries seem to have had a wide range of policies with respect to ceased titles and dropped subscriptions. At one extreme were two libraries that had over 90 percent of their holdings in the form of periodicals to which they were currently subscribing. At the other extreme were two libraries that were subscribing to less than 64 percent of the titles on their holdings lists. In the former case the dropped or ceased periodicals retained were presumably judged to be useful. Where large numbers of remnants from dropped subscriptions were retained, however, it may be assumed that they include substantial numbers of periodicals that had not been useful enough to warrant continued subscription; in which case a partial back file would be even less useful. On this assumption it is of interest to look at the distribution of dropped titles in terms of the number of libraries holding the periodical. This is done in Table 2.

This table shows the extreme diversity in the holdings of the ten libraries. Well over half of the 3,553 active titles are uniquely held, and there are only 450 titles held by a majority of the libraries. It also shows that those libraries that have continued to hold back files of periodicals to which they once subscribed have most frequently been dissatisfied with periodicals to which they were the only subscriber among the ten libraries. As stated above, more than half of the subscriptions dropped were to periodicals now held by only one library. As the number of libraries holding a title increases, the proportion of

dropped subscriptions falls. Only 4.3 percent of the subscriptions to titles now held by six or more libraries have been dropped, while the proportion is 23.3 percent for titles held by five or less libraries. To some extent this contrast is an artifact of the policy of some libraries of disposing of many of the titles to which they have dropped subscriptions. The data in Table 2, nevertheless, tend to suggest that the number of libraries subscribing to a title is an indication of its probable usefulness for a liberal arts college library.

The 450 titles to which a majority of the libraries subscribe, however, cannot be looked upon as a "basic list" to which every liberal arts college library should subscribe. A total of 4,500 subscriptions would be required to provide all the libraries with these titles. The number of subscriptions actually maintained for these periodicals was 3,399, or approximately three-fourths of the potential. It certainly cannot be assumed that the 1,101 instances of failure to subscribe or of dropped subscriptions for these 450 periodicals were all mistakes.

USE OF THE PERIODICAL BANK  
FOR ACCESS TO PERIODICALS OWNED  
BY MEMBER LIBRARIES

The second part of this study deals with the requests for photocopies that were filled by the Periodical Bank for

the member libraries and the relation of this use to their holdings. This relation is shown in Table 3. This table shows only the requests for periodicals on the holdings lists of member libraries filled by the Periodical Bank between September 1, 1969, and June 30, 1972, a period of time that included three academic years. It does not include requests filled from the Periodical Bank collection, nor from the cooperating libraries for photocopies from titles not on the holdings lists of any of the member libraries.

An examination of Table 3, especially of the last two columns on the right, disposes of the idea that the Periodical Bank could ignore a basic list of periodicals which all the member libraries would hold and for which they would supply all of their readers' needs. The heaviest demand, 78.4 requests per title requested, came for photocopies from titles held by all the libraries, followed by the demand for photocopies from titles held by all but one of the member libraries. The least demand, 12.4 requests per title, was for periodicals owned by only one of the member libraries. Not shown on the table, but lowest of all, was the demand—7.6 requests per title—for periodicals owned only by the Periodical Bank or a cooperating library.

TABLE 2  
NUMBER OF SUBSCRIPTIONS MAINTAINED AND NUMBER DROPPED, CLASSIFIED BY THE  
NUMBER OF MEMBER LIBRARIES HOLDING THE TITLE, JUNE 1971

Libraries	Number of Titles	Number of Subscriptions		Total	Percent Dropped
		Maintained	Dropped		
1	1,997	1,242	755	1,997	37.8
2	524	865	183	1,048	17.5
3	267	659	142	801	17.7
4	188	676	76	752	10.1
5	127	570	65	635	10.2
6	119	661	53	714	8.2
7	73	492	19	511	3.7
8	84	636	36	672	5.4
9	90	783	27	810	3.3
10	84	827	13	840	1.5
TOTAL	3,553	7,411	1,369	8,780	15.6



TABLE 3

NUMBER OF REQUESTS FILLED BY THE PERIODICAL BANK, SEPTEMBER 1, 1969, TO JUNE 30, 1972, BY NUMBER OF MEMBER LIBRARIES HOLDING THE PERIODICAL REQUESTED

Number of Libraries Holding Title	Number of Titles		Percent of Titles Not Requested	Number of Requests Filled	Average Number of Requests	
	Requested	Not Requested			Per Title Requested	Per Title Held
1	310	2,037	86.8	3,829	12.4	1.6
2	222	402	64.4	3,283	14.8	5.3
3	142	173	54.9	3,144	22.1	10.0
4	130	77	37.2	3,148	24.2	15.2
5	99	46	31.7	3,777	38.2	26.0
6	101	26	20.5	3,201	31.7	25.2
7	69	7	9.2	1,947	28.2	25.6
8	78	11	12.4	2,326	29.8	26.1
9	83	8	8.8	4,340	52.3	47.7
10	77	8	9.4	6,034	78.4	71.0
TOTAL	1,311	2,795	68.1	35,029	26.7	8.5

The discovery that the demand per title increased directly with the number of libraries holding the periodical called for further investigation. This was done by taking samples of 200 requests from each library and classifying the articles requested under three headings: (1) requests for articles from periodicals not included in the library's list of holdings; (2) requests for periodicals in the library's holdings list but from issues of the periodical shown by the list not to be owned; and (3) requests for periodicals that, according to its list of holdings, should be available in the library. The largest number of requests, 55.7 percent, was for articles from periodicals that the library did not have; and 32.5 percent was for articles from issues not included in the library's holdings. Thus 88.2 percent of the requests were for photocopies of articles that the holdings lists showed were not available on campus. Both of these types of demand were expected, but the importance of the second category reflecting incomplete back files, was certainly underestimated. It was also expected that there would be an occasional situation in which an issue of a periodical would be at the bindery, could not otherwise be located, or had been mutilated. There was also the possibil-

ity that screening procedures would not eliminate all requests for photocopies of articles actually available in the requesting library. Whatever the reason, such requests amounted to 11.8 percent of the sample.

The tabulating procedures used made it possible to determine what proportion of all the requests filled were for titles on the requesting library's list of holdings. This gave some indication of the representativeness of the sample. The proportion of all requests which were for titles not on the requesting library's list of holdings was 57.2 percent, as compared with the sample estimate of 55.7 percent. The sampling procedures apparently gave somewhat disproportionate weight to the libraries that made more than the average proportion of their requests for titles on their own holdings lists.

The estimate that over 88 percent of the requests filled were for photocopies from items not in the requesting library's holdings may, at first glance, seem incompatible with the finding that the heaviest demand per title was for photocopies from periodicals found on the holdings lists of all ten libraries. It should be borne in mind, however, that only 77 of the 1,311 titles requested were in the heaviest demand per title

category and that many of the member libraries' back file holdings of these titles were incomplete.

#### THE UNUSED PERIODICALS

Another significant aspect of Table 3 is the large number of the periodicals on the holdings lists of these libraries from which no requests were filled in three years. A total of 2,795 periodicals, or 68.1 percent of the titles owned, were never requested. The proportion not requested, no less than 86.8 percent of the titles held by only one library, was distinctly greater for periodicals held by a minority of the libraries than for those held by a majority. There are, therefore, three bits of evidence suggesting that the number of libraries holding a title is a useful, if indirect, indication of its probable value in a liberal arts college library. They are the higher proportion of dropped subscriptions among the less commonly held periodicals, the positive relation between the number of requests per title, and the number of libraries holding it, and the predominance of titles never requested among the titles held by only a few libraries. The best measure of the importance of a periodical for a given library is, of course, the amount of use made of it by the library's readers.

If the number of requests filled by the Periodical Bank is an indication of a periodical's usefulness, the large number of periodicals which were never requested raises serious questions about the usefulness of many of the periodicals held by these college libraries. Furthermore, there is no reason to suspect that the periodical selection processes at these libraries are significantly different from those employed by other liberal arts college libraries. The most extreme situation, of course, is that of the 2,037 periodicals owned by only one library and requested by no other library in three academic years.

#### INTERMEMBER PERIODICAL ACCESS

It may be noted that the ten libraries listed a total of 4,106 different periodicals in their holdings. This may be contrasted with the 1,675 titles held by the Periodical Bank in June 1971. The potential resource for an interlibrary periodical photocopy service represented by these 4,106 titles was recognized when the Periodical Bank was established, and arrangements were made for an interlibrary service paralleling the Periodical Bank service: using the teletypewriter for requests and first class mail for the delivery of photocopies. A summary of the use of this service for one year, July 1, 1971, to June 30, 1972, is given in Table 4.

If one imagines the hypothetical situation in which the existence of a periodical on a library's list of holdings means that the library is able to satisfy all of its readers' needs for access to the title, and that all the periodicals are equally useful, we would expect no interlibrary requests for titles held by all ten libraries, and approximately nine times as many requests for periodicals owned by only one library as for those held by nine. Table 4 shows that there were 92 (18 plus 74) requests for titles held by all ten libraries, but there were indeed more requests for uniquely held titles than for those held by nine libraries; 798 (665 plus 133) as compared with 156 (134 plus 22). But there were 2,347 periodicals held by only one library and only 91 titles held by nine libraries. Consequently, there were almost twice as many requests per title owned for the periodicals held by nine libraries as for those held by only one library. This was very different from the 9 to 1 ratio in the opposite direction suggested in the hypothetical situation described above. There is an even greater contrast in the ratio of almost 30 to 1 in favor of the titles held by nine libraries shown by the data in Table 3 for re-

TABLE 4

NUMBER OF REQUESTS FILLED BY THE INTERLIBRARY PERIODICAL ARTICLE PHOTOCOPY SERVICE  
JULY 1, 1971, TO JUNE 30, 1972, BY NUMBER OF LIBRARIES HOLDING THE TITLE

Number of Libraries Holding Title	Number of Titles		Percent of Titles Not Requested	Number of Requests Filled	Average Number of Requests Per Title	
	Requested	Not Requested			Requested	Per Title Held
1	137	1,894	93.3	665	4.9	0.3
1 plus PB*	41	275	87.0	133	3.2	0.4
2	80	323	80.1	321	4.0	0.8
2 plus PB*	55	166	75.1	231	4.2	1.0
3	48	118	71.1	127	2.6	0.8
3 plus PB*	37	112	75.2	119	3.2	0.8
4	23	49	68.1	156	6.8	2.2
4 plus PB*	47	88	65.2	178	3.8	1.3
5	20	21	51.2	106	5.3	2.6
5 plus PB*	32	72	69.2	110	3.4	1.1
6	12	12	50.0	33	2.8	1.4
6 plus PB*	36	67	65.0	114	3.2	1.1
7	6	5	45.5	19	3.2	1.7
7 plus PB*	26	39	60.0	92	3.5	1.4
8	8	4	33.3	68	8.5	5.7
8 plus PB*	24	53	68.8	79	3.3	1.0
9	5	6	54.5	22	4.4	2.0
9 plus PB*	35	45	56.2	134	3.8	1.7
10	6	3	33.3	18	3.0	2.0
10 plus PB*	32	44	57.9	74	2.3	1.0
TOTAL						
Not held by PB	345	2,435	87.6	1,535	4.4	0.6
Also held by PB	365	961	72.5	1,264	3.5	1.0
All titles	710	3,396	82.7	2,799	3.9	0.7

\* Titles held by the Periodical Bank and the number of member libraries indicated.

quests filled by the Periodical Bank.

The interlibrary loan service was particularly useful for the less generally held periodicals. Of the 2,799 requests filled for member libraries by other member libraries, 798, or 28.5 percent, were for titles held by only one member library, and 2,146, or 77.7 percent, were held by five or fewer libraries. Even so, the proportion of the total number of titles held from which other libraries requested photocopies was lower for the less widely held titles. This is particularly true of the periodicals held by only one member library. Only 178 of the 2,347 titles in this category, or 7.6 percent, were requested. The corresponding figure shown in Table 3 for requests to the Periodical Bank was 13.2 percent. Periodicals owned by only one library constituted over 57 percent of the 4,106 different titles held. But 347

of the uniquely held periodicals had ceased publication, and subscriptions to 755 had been dropped. Of these 1,102 dropped or ceased titles, 1,018 were not requested of the Periodical Bank in three years, and 1,061 were not requested in one year through the interlibrary loan service. It seems clear that many of the titles held by only one library were of limited usefulness, especially those periodicals that had ceased publication and those to which subscriptions had been dropped.

Table 4 shows separately the data for titles held by member libraries and those held also by the Periodical Bank. More than half of the periodicals requested were also held by the bank, but the number of requests for these periodicals was less than for those not owned by the bank. There are probably a number of different situations in

which another library rather than the bank is asked for a photocopy. Among them is the greater proximity of a neighboring college, and the fact that during 1971-1972—but not subsequently—the member libraries were charged twenty cents per exposure for photocopies made at cooperating libraries, but only ten cents per exposure for photocopies made from the holdings of the Periodical Bank or a member library. If the Periodical Bank was unable to fill a request from its holdings, it notified the requesting library, which then might turn to the interlibrary photocopy service with the request.

Of the 4,106 different periodicals owned by the member libraries, 2,795, or 68.1 percent, were never requested in one year from another member library. Measured by these tests, it appears that the member libraries are spending thousands of dollars each year on periodicals of doubtful utility. The real test, of course, is the actual use made by the libraries' readers. The savings promised by the elimination of unused periodicals justifies substantial efforts at every liberal arts college library to discover just how much use is being made of every title on its list of periodical holdings.



## University Libraries in Pakistan

*The development of university libraries in Pakistan is summarized, with a discussion of the current status of such libraries, including consideration of library organization, resources, organization of collections and cataloging, services to readers, and library staff. Major problems impeding improvement of library service are also discussed—the chief problem one of adequate financial support.*

THE CONCEPT OF MODERN LIBRARIANSHIP in the territories now constituting Pakistan dates back to 1915 when Asa Don Dickinson, an American librarian, was invited by the University of Panjab to organize its library on modern lines and to teach newer library methods to librarians in the province of Panjab. The institution of such instruction for the first time within the walls of a university in British India may be termed the beginning of the library profession in this part of the world. Similarly, the introduction of several modern methods by Dickinson, while reorganizing the university library, may be called the beginning of academic library service in the subcontinent of India and Pakistan. Some methods introduced included adoption of the Dewey Decimal Classification and introduction of the main entry concept, the card catalog, and the dictionary catalog.

This establishment of a library education program had a great influence on the development of libraries and the library profession in the whole of British India. Alumni of the program found their way to all parts of British India. A number of other significant develop-

ments took place during this period in the city of Lahore, the site of the University of Panjab: the Panjab Library Association was formed in 1916; the first manual on librarianship, *Panjab Library Primer*, was published in the same year by the university; the first All India Library Conference was held at Lahore in 1918; and the first professional journal, *Modern Librarian*, began publication here in 1930.

But, these achievements notwithstanding, the climate for library development in the academic institutions of British India was not favorable. The reason may be found in the textbook-oriented teaching method used by institutions of higher education at that time. Even after independence in 1947 the educational system of British India remained in force. Change occurred only in the 1960s when a new concept—quality in education—began to gain ground. This basic change in educational philosophy brought with it an overall consciousness of the need for improved academic library service. The need for better libraries had also been recognized in the several documents of the provincial and central governments as well as in reports of various national commissions. For example, the report of the Commission on National Education in 1959 stated: "Every college and university should have a library large enough to act as a work-

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room where all students are able to study privately during off periods and outside college hours." Further, emphasizing the importance of the library in the university, it noted: "The library is at the very heart of the idea of the university, and . . . books with which it is stocked, librarians who serve in it, and the kind of use which students make of it should reveal the extent to which it is discharging its real function."<sup>1</sup>

Some significant library developments which had an impact on academic library development included: (a) the institution of the Post-Graduate Diploma Course in Librarianship at the University of Karachi (1956); (b) the formation of the Pakistan Library Association (1957) and other professional organizations at the provincial and regional levels; (c) the publication of the *Pakistan Library Review* (1958) as a professional medium of communication; (d) the establishment of the National Book Center of Pakistan (1961); (e) the institution of the Master's Program in Library Science at the University of Karachi (1962); (f) the enactment of a copyright law (1962); and (g) the establishment of the National Bibliographical Unit (1962).

A number of other general factors may also be cited: (a) the political and economic stability of the country; (b) the tremendous increase in the enrollment of the universities; (c) the establishment of new universities and expansion of older ones; and (d) the changing objective of higher education. To achieve this objective, universities were to provide competent human resources for national development and to undertake research projects to further the economic and social development of Pakistan.

The following survey of university library service in Pakistan and the problems which have retarded the libraries in reaching their fullest potential is based, for the most part, on the observa-

tions and experience of this author.<sup>2</sup>

#### A SURVEY OF UNIVERSITY LIBRARIES

Excluding the University of Panjab, whose origin dates from 1882, the universities in Pakistan and their libraries are the product of the postindependence period. At present there are eight universities in Pakistan with a total student body of 25,000 students and more than 3,000 faculty members and research staff. All the universities are both teaching and, with the exception of the University of Islamabad and two professional universities, affiliating bodies. In general, the universities in Pakistan are responsible for graduate and postgraduate studies. Usually a general university has arts, science, and other faculties divided into departments for principal subjects. These provide courses in the arts, social sciences, physical sciences, natural sciences, law, medicine, etc. Most of the universities offer research degrees.

#### Organization

All universities in Pakistan, with the exception of the University of Baluchistan where the library is in the process of being established, have provision for some kind of library service. The tradition of a central library along with departmental/seminar libraries outside the central organization is the most favored form of structure at present. The only exceptions are the Universities of Karachi and Islamabad. At Karachi collections and services have been brought together in one building. On the other hand, the library at Islamabad has been organized on a decentralized basis, despite the existence of a central library which retains primary responsibility for acquisition and processing of materials.

#### Resources

With respect to size of collections, the university libraries in Pakistan are somewhat similar to medium-size college

libraries in the United States. The Panjab University Library (once enjoying the honor of being the leading university library in the Indo-Pakistan subcontinent) has a collection of 250,000 volumes, including 18,000 manuscripts in Oriental languages, and is the country's leading library. The next largest is the Karachi University Library, established in 1951. It has a collection of 200,000 volumes, including back runs of periodicals, and 5,000 microforms of rare and out-of-print materials. The University of Sind at Hyderabad, founded a short time before independence, has recently reached a total of 110,000 volumes. The libraries of the Universities of Peshawar (1950) and Islamabad (1965) and the two professional universities (1961) range in size between 75,000 and 100,000 volumes.

The combined resources of all the university libraries in the country total approximately 800,000 volumes. The majority of books, nearly 75 to 80 percent, are in English, primarily American and British publications, followed by books in the national language (Urdu) and other languages (Persian, Arabic, and regional languages). In terms of major disciplines represented in the collections, the scientific and technological subjects are preeminent, followed by the humanities, social sciences, and history.

### *Organization of the Collections*

For the organization of their resources, the libraries employ the Dewey Decimal Classification with some modifications for Oriental topics, such as Islamic Philosophy, Islam, and Oriental languages, literature, and history. The expansion of the Dewey classification, prepared by M. Shafi in cooperation with the Department of Library Science of Karachi University, is the most widely used.

Both dictionary and classified catalogs are in existence, but the majority

do employ a classified catalog. The *Anglo-American Cataloging Rules* (1967) are followed. Because of the absence of a national cataloging code in a true sense, there are great problems in the cataloging of Oriental materials. *Cataloguing of Pakistani Names*, by Anis Khurshid, is used by the majority of university libraries for cataloging of publications by Pakistani authors at present.<sup>3</sup> Generally, a separate catalog, in Arabic script, is maintained for Oriental books.

### *Services for Readers*

Usual library services include: preparation of bibliographies and list of current acquisitions; interlibrary loan; exchange programs with other libraries and research organizations; maintenance of clipping and pamphlet files; provision of photocopy service and microfilming of rare materials; answering inquiries; help to students in the use of materials; and organization of lectures and exhibitions.

On the basis of observations, it may be concluded that an average Pakistani student makes more use of the library at present than did his predecessor. This may be due to the change in the traditional educational method as well as the improved services offered by the libraries. Like students, the younger members of the faculty, particularly those educated in the United States and Great Britain, use the libraries more frequently and more extensively than did their predecessors. The greatest obstacle to library use is the closed stack system in effect.

### *The Library Staff*

The importance of a qualified staff as one requirement for the improvement of libraries cannot be overemphasized. There was an acute shortage of qualified manpower in the field in the early years after the birth of Pakistan. For example, the Panjab University Li-



brary, the largest library in the country, remained without a single professional librarian for many years. But, with the institution of courses leading to the master's degree in library science, there is now no shortage of qualified librarians, at least for secondary positions. Each year there are 150 new holders of the Post-Graduate Diploma and 50 new graduates with the master's degree, and this is sufficient for the time being. But the location of competent individuals to hold top administrative positions is a major problem. For example, the University of Islamabad has not been able to find a suitable university librarian for the past five years. Similar situations are true for the University of Engineering and Technology, Lahore, and the University of Baluchistan, Quetta.

Another manpower problem faced by the academic libraries is the "brain-drain." Some of the nation's best librarians have left their jobs and are now working in the United Kingdom, Canada, Nigeria, Libya, Saudi Arabia, and Iran. Others are trying to leave the country for better opportunities elsewhere. This is primarily because of the low salaries and low status attached to this profession, despite the best efforts of librarians and their professional organizations. However, in the Education Policy, announced by the government in March 1972, granting of faculty status has been recommended for the first time to the professional staff working in academic libraries.<sup>4</sup> But for a number of reasons the recommendation has not been implemented in full.

### *Physical Facilities*

The existing university libraries, with the exception of those at Peshawar, Karachi, and Sind, do not have their own permanent buildings. This remains one of the major obstacles to the expansion and introduction of modern and newer services. This need has been felt particularly in recent years, and new library buildings are included in the master

plans for the new campuses at some universities. It is expected that within the next ten years all university libraries will have their own permanent quarters.

### MAJOR PROBLEMS

University libraries in Pakistan face a number of problems, and the following are the most significant.

#### *Inadequacy of Collections*

In recent years the university libraries have come to feel the inadequacy of their resources to meet the needs of the growing instructional and research programs of the universities. The evaluation of the collections in certain subjects, even at the universities with the largest collections, by students in the M.A. course in library science, has revealed the existence of obsolete materials, unnecessary duplication of titles, and gaps in periodical holdings. The coverage of current periodical literature presents a more gloomy picture; for example, the Karachi University Library has the largest periodical list—1,200 titles; whereas other libraries receive from 200 to 700 titles.

#### *Dearth of Textbooks*

In advanced countries students are expected to purchase their own textbooks, but in Pakistan the students cannot afford to do so because of their poverty. Therefore, libraries are compelled to allocate a portion of their meager budgets for this purpose. In answer to this problem, the Karachi University Library, with the financial assistance of the Asia Foundation, established the Book-Bank Service in 1964. Through this service books are lent to students for the entire academic year at a nominal charge. The example furnished by Karachi has been followed at Panjab and Peshawar.

#### *Difficulties in Acquisitions*

Due to low book production and the absence of an organized book trade in the country, libraries in Pakistan buy



about 70 percent of required books from abroad—either directly as in the case of university and research libraries, or for college and other small libraries through local booksellers. Problems encountered include nonavailability of selection aids, import restrictions, postal and customs formalities, and conversion rates if procured through local booksellers.

In procuring books produced locally, main problems include absence of selection aids, nonappearance of the current national bibliography regularly, and the lack of subject bibliographies and publishers' catalogs.

### *Financial Support*

This is the most serious problem at the present time because of the country's own economic problems during the last several years. The absence of sufficient funds has badly affected the quality of resources, particularly in the procurement of books from abroad.

A comparison of figures for university libraries reveals that usually the amount allocated for the library in the universities ranged between 100,000 and 250,000 rupees (approximately \$10,000 to \$25,000 U.S.). This sum does not include library salaries. In some universities there is no separate budget for the library; instead, it forms a part of "the publications fund" for the institution.

### *Interinstitutional Cooperation*

The importance of library cooperation in a developing country like Pakistan cannot be overemphasized; but, with the exception of interlibrary loan,

there is no cooperation. Even the operation of interlibrary loan on a wider scale has been impeded because of the absence of a union catalog and an interlibrary loan code. The major areas for cooperation among libraries at the present are: cooperative acquisitions based on subject specialization (with particular reference to acquisition of periodicals) among university libraries; compilation of a union catalog and union list of serials; development of a storage center for manuscripts and rare books; and the establishment of bibliographical centers at regional levels.

### CONCLUSION

Despite all their limitations, university libraries in Pakistan are in better condition than other types of libraries. The chief deterrent to their development has always been the lack of money. The improvement of library service in Pakistan is more closely linked to the country's economy than in any other developing country. However, with the economic reforms introduced in the country within the last two years, it is hoped that conditions will improve. Another step taken by the present government, which may mean improvement and expansion in library service, was the issuance of the Education Policy in March 1972. This policy covers many areas related to library services and library resources; and one may hope that, along with the general improvement and expansion in the educational and research facilities in the country, university libraries in Pakistan will also face a better future.

### REFERENCES

1. Pakistan Ministry of Education, *Report of the Commission on National Education* (Karachi: Manager of Publications, 1960), p.65.
2. Syed Jalaluddin Haider and Akhtar Hanif, "University Libraries," in *Studies in Pakistan Librarianship* (Karachi: Librarians Forum, 1971), p.29-42. Syed Jalaluddin Haider, "Science-Technology Libraries in Pakistan," *Special Libraries* 65:474-78 (Oct./Nov. 1974).
3. Anis Khurshid, *Cataloguing of Pakistani Names* (Karachi: University of Karachi Library Science Dept., 1964).
4. Pakistan Ministry of Education, *The Education Policy, 1972-1980* (Islamabad: The Ministry, 1972).

## Establishing a College Archives: Possibilities and Priorities

*Because the job of establishing a college archives often falls to librarians or historians who have had little formal training in archival work, some guidelines are useful. The author discusses how an archives is usually created, ways of publicizing the archivist's activity, and the role and composition of a faculty-staff committee. The second half of the article highlights services the archivist can offer to students, faculty, and administration, including creation of subject and biographical files, collection of faculty and institutional publications, development of an iconographic file, collection and use of memorabilia, and establishment of an oral history program.*

INCREASINGLY COLLEGE AND UNIVERSITY LIBRARIES must cope with the availability and demand for nonprint material for instructional use, research, and recreation. Some institutions have met the challenge by establishing separate departmental, divisional, or college libraries within the multiversity. Others have created special learning centers, archives, and recording libraries to handle nonbook material, while still others have centralized the entire operation under the direction of the library with specific departments to handle these specialized needs. In nearly all these cases, the professional librarian has been the person who is charged with the responsibility for developing a viable program, but he has often not had the necessary training in graduate school. Once on the job he may not be given adequate room for innovation or sufficient direction

and budget support to develop a program.

Archivists in particular face that problem. They do not receive an academic degree or certification in preparation for their job, and often their education in history or library science does not equip them to establish a college archives. The best that a potential archivist can hope for is an occasional course in library school which not only focuses on manuscripts and special collections, but on archives generally.<sup>1</sup> Lacking formal preparation, a librarian who is appointed college archivist must turn to the literature of the field to find some guidance. Unfortunately, relevant information is difficult to find: library journals traditionally eschew archival articles and the *American Archivist's* articles on college archives are frequently no more than institutional case studies.<sup>2</sup> The new archivist, therefore, confronts his job with few guidelines or suggestions.

In an effort to establish a college or university archives, the archivist must realize that his own conception of the value of an archives may not necessarily

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correspond with the values perceived by those whom he must serve. The Pyrrhic purist, in defining too narrowly the archivist's purview, succeeds only in diminishing his influence on the campus. Therefore, the archivist's role must be both one of educating the academic community about the nature of an archives and one of accommodating administrators' and students' preconceptions of an archives.<sup>3</sup> In performing that dual role, the archivist must use his imagination, his budget, and his personality to maximize the importance of the archives in the minds of administrators, faculty, and students. A survey of possible options for publicizing and promoting use of a college archives suggests the variety of approaches available. For purposes of discussion, they can be broadly categorized as personnel and service.

#### POSITION OF ARCHIVES IN A COLLEGE ADMINISTRATION

The staffing of the archives and its place in the organization of the college are perhaps the most important determinants of how successful it will be. In most cases, this has been determined by the administration before the archivist is hired. This does not necessarily mean that it cannot be changed in the future, but it is more difficult both because of the necessary red tape involved in any administrative reorganization and because of the inertia of the system, once operative.

The place of an archives in the overall structure of the college may be important less from a budgeting or decision-making point of view than from the need for direct access to key administrators from the chancellor or president on down. If this can be accomplished, even if the salary is not commensurate with the rank or title, then half the battle has been won. Archivists usually function either in an administrative support capacity under the su-

pervision of the chancellor or vice-president for university relations or, frequently, in an instructional support capacity under the supervision of the director of libraries and special collections.<sup>4</sup> Either position has its advantages and disadvantages. In the former case, the archivist is on an equal footing with other campus administrators and may have more success in persuading reluctant directors and deans to relinquish their hold on noncurrent files. What is an asset in dealing with administrators may, however, be a liability with faculty or students. If, for instance, faculties view the transfer of their records as an invitation to the archivist to cull the collection and report to his supervisor, then he is unlikely to get the professor's complete record. This is even more true in dealing with student groups and in using the new techniques of oral history. What professor would be willing to give his unvarnished opinion of university policy and administrators if he did not feel assured of the confidentiality of his remarks? In these instances, the archivist who is less closely identified with the administration and more a part of the college library would undoubtedly enjoy more success.<sup>5</sup>

Often, establishment of an archives derives from administrative mandate rather than from specific faculty or regent legislation. In most institutions the boards of trustees or regents may not call for the creation of an archives, but an active and alert faculty government may recommend it to the administration. If the archives is established at the behest of the faculty, then this fact can be used to emphasize broadly based support. Alternatively, if the archives is created by the administration, that fact should likewise be used to indicate high-level administrative recognition of the need for an archives. Either tack can be taken in prodding reluctant administrators and faculty to turn over



their records before retiring, changing offices, or leaving the campus.

#### PUBLICIZING THE ARCHIVES

After establishment of an archives and appointment of the archivist, the job of publicizing the new office should begin immediately. Frequently the public information bureau or student newspaper informs the campus of newly created offices and their services. This is the first and most obvious method of introducing the archivist to the campus community and of explaining his role to the widest possible audience. Another method would be a letter of introduction and explanation from the chancellor, president, or library director to the academic staff. Whether written by the chancellor or some other important administrator, this letter can be of great help in publicizing the role of the archivist on campus.

No matter what the format of such a letter or memorandum, it should contain certain information designated to clarify the archivist's position, general duties, educational background, professional experience, and any other information which will make his case a strong and convincing one. The letter should be brief, allowing the archivist room to discuss relevant details in person at a later date with each departmental chairman or divisional dean.

After the chancellor or librarian has sent a letter of introduction to faculty and administrators, the archivist should make personal courtesy calls. At these meetings he must be prepared to sell his services to the administrators and to allay any fears they may have regarding the loss, damage, or violation of confidentiality of their records. The archivist will have to determine his policies in advance so that he will be able to establish a consistent procedure for all departments. If possible he should survey the records of each office he visits and procure any background information that

will help him understand its function and history. Some offices may have departmental histories which not only trace the development of the department, but also provide information about the composition of the staff and their respective positions over the years. If such information is unavailable in this form, then the archivist can frequently obtain the same information through accreditation reports or old university catalogs.<sup>6</sup>

#### ARCHIVES COMMITTEE

Although its members are not technically part of the staff, an archives committee can be a valuable tool in educating faculty, students, and administrators to the role of an archives. This advisory committee should include the archivist *ex officio* and representatives from four areas of the university: (1) business, (2) historical, (3) legal, and (4) administrative. The reason for each of these is fairly obvious. Since financial records of the college will eventually be transferred to the archives, it is important that a qualified member of the committee judge which records may later be needed for income tax data, employment record verification, and budget review. Although the archivist is often a trained historian, it is, nevertheless, good to have a faculty representative, preferably from the history discipline and with a background in United States history, to act on behalf of researchers and social scientists who use the archives. Third, some sort of legal representative should be included to give advice regarding the archivist's responsibilities to preserve the confidentiality of certain files, and to interpret the laws concerning the records of the institution (federal, state, or university). Finally, because the archives may be funded through the central administration or because it serves as a major support function for administrators, there should be an administrator on the



committee who can speak with authority for the staff.<sup>7</sup>

In addition to these four members, the director of libraries would guarantee his stake in the successful development of an archival program. This is especially important when the archives is an integral part, physically and administratively, of the library system. Since a sizable portion of student records will eventually be transferred to the archives, the registrar or director of admissions whose offices generate these records might be included on the committee. In the event university policy permits student representatives on faculty and administrative committees, then the student government should be asked to furnish a representative. A student on the committee would not seriously jeopardize the confidentiality of non-public university material, and he might serve to introduce the archivist to the students.

The value of a committee, no matter what its composition, is that it increases the visibility of the archivist to all segments of the university community. Especially where the archivist does not have an academic-administrative appointment, the committee can publicize the archives and give it respectability on the campus. If appeals to faculty and staff can be drafted over the signature of a broadly based committee, the archivist's job will be made easier.

#### A SERVICE-ORIENTED ARCHIVES

All of these methods of publicizing the archives to faculty, students, and administrators relate to personnel policies: appointment of the archivist, courtesy calls on academic staff, and creation of an archives advisory committee. But what are the services an archives can offer that might be used to educate and serve the campus community? Services might include establishing and maintaining an extensive records management program and such diverse collec-

tions as institutional publications, subject and biographical files, faculty publications, as well as iconographic material, memorabilia, and oral history.

The archivist's first obligation, of course, is to preserve all significant non-current records of the university. That includes every type of record: budget, financial, student, faculty, and administrative. Beyond this the amount of collateral work that can be performed is dependent on staff and budget. Many activities performed by the news or public information service, the library, the registrar's office, or admissions office, can as easily be performed by the archives. This is especially true where these other offices are understaffed or cramped for space, as is often the case at an older institution. Many of these services may be necessary, for as the archives comes to be known for these collateral resources, its more fundamental purpose of collecting historically significant records will be better appreciated. But in extending these services, the archivist should neither lose sight of his primary obligation of preserving important noncurrent records nor permit his office to become a dumping ground for inconsequential material.

In the case of the offices of the registrar, admissions, student affairs, payroll, and bursar, the archivist can provide a valuable service as a records manager. These offices generate a substantial number of forms which vary in value from short-term items, such as requisitions or interoffice memos, to permanently valuable student transcripts or budget records. The problem of these offices is one of storage space for important but infrequently used records. A mutually approved records disposal schedule should satisfy the needs of the individual offices for occasional reference work and free them of records which occupy prime office file and storage space. Such a records management program empha-

sizes cost savings and internal administrative services which a comprehensive college archives can provide.<sup>8</sup>

#### VERTICAL FILES

If the archives is to be a clearing-house for all university-related activities, then the possibilities for a research and resource center reflecting all aspects of the college are great indeed. A college is known to the public mainly through the printed word, often by its own publications, including student newspapers, yearbooks, catalogs, timetables, brochures, conference proceedings, colloquia, bulletins, and alumni newsletters. Internally, these publications provide valuable information for those new to a specific job or interested in the history of the institution, the quality of its work, and the variety of its undertakings. For them, boxes of manuscript materials and volumes of budget records are overkill. But the publications will often be the key to the entire college, the tip of the iceberg. Soliciting, collecting, and maintaining a complete set of all publications supported by or related to the college puts the archivist in contact with most units on campus. The file can serve as reference for the activities of the campus, provide background on programs, and supply information to the press for news releases. Naturally as the collection grows older it develops historical importance as one gauge of the university's growth and development.

Closely associated with a publication file would be a subject file of clip sheets or newspaper clippings. Some large universities have a news service or office of public information which collects all newspaper, magazine, and periodical articles relating to the university. In some cases the athletic department maintains its own sports file. Still other colleges subscribe to a state or regional news clipping service. The archivist should arrange with the offices which handle

these files to draft a disposal schedule in which the clippings would be transferred to the archives periodically. The offices originally responsible for the records should, of course, have access to the clippings at any time. Once the news items lose their current value, they become historically important for dating a speech, explaining a situation, or providing information for a commemorative event. For that reason they should be kept in the archives along with other items of enduring value. This clipping file, in fact, can form the nucleus of a major subject file. By including mimeograph material and internal publications, the subject file can become a valuable resource to the university. As people begin to use these materials, they will remember the archives and may use its other collections to find valuable historical information.

In conjunction with the subject file, or separate from it, is a biographical file which would include information on faculty, administration, and students. Sometimes biographical information can be solicited directly from faculty or staff in the form of a questionnaire. This has the advantage of standardizing the information on each person.

Of importance in documenting the achievements of faculty and administration is an author or faculty publications file. Libraries occasionally maintain a faculty publications file, but these are often incomplete because they include only books. A good working arrangement with the other librarians might call for the library to acquire all books published by the faculty and for the archives to collect all articles and published papers. Usually here the archivist can count on the cooperation of the faculty. He can send a form letter to the faculty asking for reprints, or at least for the correct bibliographical citations. After initial solicitation of the faculty, the archivist should circulate

a similar form semiannually, or obtain a list of new faculty from the dean's office, departmental chairperson, or the college catalog. At a medium-sized or smaller college, the archivist might solicit faculty publications on a person-to-person basis. Personalization assures good public relations between the archives and the rest of the academic community and introduces the archivist to all segments of the faculty. It also serves to encourage faculty use of the archives for its intended function—a source of reliable historical data.

### NONPRINT FILES

Increasingly important in a multimedia world is nonwritten communication including iconography and video and sound tape recordings. An iconographic or photo collection is of importance not only for news releases or articles, but also for future research on the growth of the college or the biography of a particular faculty member or administrator. The best method of acquiring a photograph file, while at the same time publicizing the archives, is to contact the yearbook or student newspaper staff at the end of each year. The news service may be willing to provide photographs as well. Sometimes local newspapers have photos from previous features on the campus or its activities and personalities. If the archivist assures local newspaper editors that they are welcome to use his own photograph collection, they may be willing to turn over their old photographs to him, especially those of building construction now completed, of buildings no longer standing, of faculty who have died or retired, or of students who have graduated.

Sound and videotape recordings are a valuable record of college activities. Often panel discussions of eminent people, lectures by visiting professors or celebrities, recitals of different musical and choral aggregations, and stage

productions flesh out the history of a university. They also provide a record of many important activities that may not be available otherwise. In the event no one records important activities or events on campus, the archives should attempt to do so. However, with a limited budget this is impractical and other projects should have priority. To save time and money the archivist might ask the audiovisual department to supply the sponsoring agency with a tape recorder and charge the archives for the tape. Someone sponsoring the event could then record the activity and send the tape to the archives. Such records are doubly valuable, in fact. They are both the proper domain of archives, and their popular appeal will draw students and faculty to the archives as a source of historical information.

The most amorphous category of archival material is memorabilia. Awards, trophies, and citations given to the college, or to an administrator as representative of the university, are obvious examples of memorabilia. Other items of campus interest in this category include alumni scrapbooks, ground breaking shovels, student dance programs, something from a destroyed building, or relics of student traditions and activities. Though these are perhaps more the stuff of museums, their deposit in the archives will publicize the archives and eventually draw attention to its more important collections. The variety of this material makes classification difficult and storage nearly impossible. Yet these handicaps should not deter the archivist from actively soliciting memorabilia. Memorabilia is seldom of much historical importance in itself but is frequently the only tangible, three-dimensional representation of a bygone period. It is often eye-catching and makes an attractive display of the university's history. The archivist can serve the university by preserving the material and can assist in arranging displays of



the university's past when called upon to do so for open houses, centennials, commemorations, and reunions.

#### ORAL HISTORY

A final dimension to an all-inclusive archival program is an oral history project. The value of some form of oral history has been proven by Columbia University and the various presidential libraries. Yet the costs of such a project should be well understood before implementation. Even on a modest budget, however, the archivist can undertake a limited project that might well complement his own collections. Where cost is a consideration, the interviews need not be transcribed immediately, especially since they will seldom be available for research use without time restrictions. Recording the interviews before key people leave campus should have a higher priority than eventual transcriptions. These interviews are valuable because they supplement the written record and may be the only autobiographical record a busy professor or administrator leaves. As much as any service the archivist provides, an oral history project which asks the right questions of the right people can be of great value.<sup>9</sup>

#### SUMMARY

This cursory examination of the variety of archival material and the different types of services an archives can render should not imply that each activity is of equal value. The heart of an archives is its manuscript and administrative files. Papers of faculty and staff are unique whereas publications may be found elsewhere. Therefore, papers of key administrators and prom-

inent faculty are of much greater importance than biographical, clipping, or subject files. Scholars will seldom come to the archives in search of publications or memorabilia. They are usually interested in the manuscripts of individuals, in records of various organizations, or in administrative papers that show how decisions were made, who made them, and what the lines of responsibility were. This is the stuff of which biographies, institutional studies, and college histories are written.

Auxiliary services can be emphasized, depending on the size of the staff, age and size of the institution, physical space available, and the energy of the archivist. Records management and retention of vital records are services to offices that generate the records and may be a necessary part of the operation of a college archives, but they should not take precedence over processing archival acquisitions. Like the maintenance of a faculty author file or newspaper file, records management may be necessary to win support for the archives within the administration, to establish good public relations with other departments or divisions, and to establish credibility and worth in the eyes of budget officers.

The individual priorities must be set by the archivist to fit his specific needs, but administrative and faculty files should head his list. Securing and preserving historically important material must nevertheless be combined with a level-headed sense of service to the needs of the academic community. Too rigidly restricting the role of a university archivist reduces his value to the academic community and possibly jeopardizes his job as well!

#### REFERENCES

1. Although the Society of American Archivists neither endorses nor accredits courses in archives, its Committee on Education and Professional Development has published a directory, *Education Directory: Careers and Courses in Archival Administration* (Ann Arbor: The Society of American Archivists, 1973). Twelve universities in the United



- States offer multiple courses on archives; an additional twenty colleges or universities in the United States and Canada offer single courses. These courses are fairly evenly divided between history departments and library schools. One of the six institutes described in the directory deals specifically with college and university archives: an annual summer workshop at Case Western Reserve University.
2. A survey of articles included in "College and University Archives: A Select Bibliography," *American Archivist* 37:67-72 (Jan. 1974) reflects the emphasis on individual archival institutions. This annotated bibliography of articles and books is the most recent available published source of scholarly literature on college and university archives. Although several articles, reviews, and books on archives are regularly listed in *Library Literature*, there is a paucity of articles on college archives, and most of these deal with technical areas of classification and retrieval. The most recent issue of *Library Trends* to deal comprehensively with archives was published in January 1957 and edited by R. W. G. Vail. Various technical aspects of a college archival operation, including a comparison between different methods of classification and control between librarians and archivists, is presented in *Proceedings of the Conference on Archival Administration for Small Universities, Colleges and Junior Colleges* (University of Illinois Graduate School of Library Science, Occasional Papers No. 88, Oct. 1967). Another useful source for the technical aspects of appraisal, arrangement, and availability of archival material is Woodrow W. Wasson, "Organizing and Administering a University Archives," *College & Research Libraries* 29:109-16 (March 1968). A brief overview may be found in Thomas E. Blantz, CSC, "The Librarian as Archivist," *Catholic Library World* 46:14-16 (July-August 1974).
  3. This idea has been a popular theme of the College and University Archives session at recent annual meetings of the Society of American Archivists. The thirty-sixth annual meeting (October 31-November 3, 1972) included a session entitled "Justifying the College and University Archives in the 1970's," dealing primarily with the archivist's increased responsibilities in a period of fiscal restraint. "The Role of College and University Archives: Dimensions and Directions," a session at the thirty-eighth annual meeting (October 1-4, 1974), explored new uses of traditional sources, new methods of documentation, and new services which librarians and archivists can offer.
  4. Committee on College and University Archives, *College and University Archives in the U.S. and Canada* (Ann Arbor: The Society of American Archivists, 1972) is an updated directory of the 1966 survey. The directory is based on a summary of data solicited through nearly 1,400 survey questionnaires of which over 850 were completed and returned. One of the questions dealt specifically with the place of an archives in the table of the institution's organization. Not surprisingly, more than twice as many were listed as reporting to the library than to all other administrative units combined. Other categories included chancellor's or president's office, vice-president for public relations, vice-president for administration, and the department of history.
  5. Maynard J. Brichford, "University Archives: Relationships with Faculty," *American Archivist* 34:173-81 (April 1971); Herbert Finch, "The Problem of Confidentiality in a College Archives," *American Archivist* 31:239-41 (July 1968); Walter Rundell, Jr., "Personal Data from University Archives," *American Archivist* 34:183-88 (April 1971).
  6. This approach of soliciting departmental histories was successfully followed in compiling one of the pioneer university histories, Merle Curti and Vernon Carstensen, *The University of Wisconsin: A History, 1848-1925*, 2v. (Madison: Univ. of Wisconsin Pr., 1949, 1974). These then became one of the first accessions when the archives was formally created; see series 0/5/11 in University of Wisconsin Archives, Madison, Wisconsin.
  7. The "Laws and Regulations of the University of Wisconsin," for instance, provide for the creation of an Archives Committee. On the Madison campus, faculty legislation spells out exactly who serves on that committee: "the University archivist, the secretary of the faculty, the vice-president for business affairs, the chairman of the Library Committee, the director of University Libraries, the director of the State Historical Society, and three additional members of the faculty appointed by the Chancellor," Sec. 24.03 "Laws and Regulations of the University of Wisconsin, 1969."
  8. Clifford K. Shipton, "The Reference Use of Archives," in Roland E. Stevens, ed., *University Archives* (Champaign: Illini Union Bookstore, 1965), p.68-81; Helen L. Chatfield, "Records Management in the Administration of College and University Archives," *American Archivist* 31:243-45 (July 1968); William F. Schmidt and Sarah J. Wilson, "A Practical Approach to University Records Management," *American Archivist* 31:247-

- 64 (July 1968); William Saffady, "A University Archives and Records Management Program: Some Operational Guidelines," *College & Research Libraries* 35:204-10 (May 1974); G. W. Cornell, "The College Archive: A Study in Administration" (Ph.D. dissertation, The Ohio State University, 1968), p.111-76; North Carolina State Department of Archives and History, *College and University Records Retention and Disposition Schedule* (Raleigh: State Department of Archives and History, 1964).
9. William W. Moss, *Oral History Program Manual* (New York: Praeger, 1973) is worth reading, even though the book reflects the type of funding the author has enjoyed during his work on the John F. Kennedy Oral History Project. Although it focuses on California, there is much valuable information in Richard D. Curtiss, Gary L. Shumway, and Shirley E. Stephenson, eds., *A Guide for Oral History Programs* (Fullerton: California State Univ., 1973). Different aspects of oral history, although not confined to college programs, are discussed in four articles in *American Archivist* 28:53-83 (January 1965). Unfortunately, there exist little hard data on cost and time for transcribing interviews in oral history programs which supplement a larger archival operation not primarily concerned with oral history.

# Practical Interpretation of Citation and Library Use Studies

*Most studies of journal citations and library use are of little if any practical use to librarians and information system designers because of inadequate data collection and analysis. The paper considers the data required to guide (a) the librarian in acquisition (current and retrospective), discarding, and binding; and (b) the information system designer in selecting journals to be scanned for secondary services, selecting items from journals scanned, and retiring items from active files.*

**T**HIS PAPER IS CONCERNED only with the units in which citation and use analyses need to be expressed if they are to be of practical value. Questions such as the validity of citations as indicators of use, size of sample needed (of sources and of actual citations) in view of the wide variability between journals and volumes within journals, the relative usefulness of different sources of citations, the differences between synchronous and diachronous data, and the problems of forecasting future use, have been discussed elsewhere.<sup>1, 2</sup>

Citation and library use studies have most commonly considered journals, counting the frequencies of use or citation, calculating "obsolescence" rates, ranking titles in order of citations received, and so on. These studies are claimed to be of use to librarians and information system designers, in guiding them as to what to buy and when to discard. As these studies have been re-

ported, however, most are of limited value, and some are positively misleading. The data have too often been collected with inadequate sampling techniques, forgetting that an age-group or title with many volumes is more likely to appear in a random sample in which volumes or papers are being counted than one with fewer. Ranked lists of crude "uses" are valueless; most do not even take into account the length of time each journal has been in existence. Before useful conclusions can be drawn, results must be expressed in units that allow for distorting factors, e.g., not as frequencies of use, but as densities of use per item, and so on.

To assess the practical value of use studies, it is desirable first to consider what decisions a librarian or information system designer may need to make that could be aided by a use study.

## LIBRARY PROBLEMS

To take questions faced by the librarian first:

1. Which journals to buy. The librarian will have a strictly limited budget or will want to know which 500 (or 1,000 or 2,000) journals

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will give him best value for money. To assess this he needs to know *how many uses per monetary unit* each journal provides. The costs of a journal include the initial ordering cost and then annually recurring costs of:

- a. Subscription;
- b. Accounting, claiming parts not received, etc.;
- c. Receiving and processing of parts—this depends on the number of parts per year;
- d. Preparing for binding, and actual binding—depending on the bulk received each year (number of volumes and size of volumes);
- e. Storage cost—depending on the additional shelf space occupied each year, which for many titles fluctuates substantially, and for some was increasing exponentially during the 1960s.

So far, to the best of our knowledge, no studies giving this information have appeared. Reanalysis of data from a citation study, to take account of the above factors, can produce large differences in rank order.<sup>3</sup> It should also be noted that some studies have shown substantial changes in rank from year to year;<sup>4</sup> these changes are especially likely to affect the middle ranking journals, for which the selection decision is in any case the most difficult.

2. What volumes of which journals to discard, and when. For both his space problems and retention costs, the librarian needs to know when *the number of uses per unit of shelf space* is at a level where retention is uneconomic (though he may still decide to retain for other reasons). There seems to be so much variation between individual journals in the use made from year

to year that generalized "obsolescence rates" are of no value whatever. Data have, therefore, to be collected for individual journals. When this is being done, the uses of each volume have to be related to the space it occupies—if a 1970 volume receives twice as many uses as a 1950 volume, and it is twice as thick, both are earning their keep equally. Such statements as "the half life of physics literature is four years," so far from being of practical use, are extremely dangerous, since they take no account of several important factors. A recent reanalysis of data from a library use study of physics journals showed that once allowance was made for the steadily increasing bulk of many journals, there was no sign of "obsolescence" except in the very recent issues.<sup>5</sup> There were also substantial differences between titles in the level of use per unit of shelf occupation.

In certain cases, library space may be so strictly limited that the librarian will be more concerned with uses relative to other material than with any arbitrary level of actual use. If this is so, he may wish or need to dispose of material that is strictly earning its keep, but the data required for comparing one type of material with another still need to be expressed as uses per unit of shelf, or uses per dollar, or a similar appropriate unit.

3. Whether or not to bind. This question is really an extension of the previous two. Some journals are heavily used for "updating" purposes for some months after they are first received and only rarely for "basic" or retrospective searches after they are more than two or three years old; they may not be worth binding at all. Any library



use study, however, which counts unbound parts and bound volumes as if they were equal units is useless here, for they must inevitably inflate the apparent relative use of the most recent issues.

4. Whether to buy a back run. For this, an assessment has to be made of the relative costs and benefits of borrowing and buying. This depends on the date beyond which it is less economic to buy than to borrow, on the shelfspace required for the back run, and the purchase price. None of this information is provided by citation studies, or by use studies conducted in other libraries, and the purchase price in particular may vary a good deal from supplier to supplier. The only value of citation studies is that they may be of some small aid in providing evidence on the need for older volumes, but they will probably underestimate the relative use of the older material. Interlibrary loan demands from the library in question are likely to provide better evidence.

#### INFORMATION SYSTEM PROBLEMS

The information system designer is faced with three problems: selecting the material to scan; selecting items to make available in indexes, abstracts, or computerized current awareness services; and selecting, retaining, and relegating items in manual or machine-readable files for retrospective searching.

1. Which selecting journals should be scanned for articles to include. Here the cost factors are very different from those faced by the librarian. The service may not in fact purchase the journals, so that the concern is with numbers of items extracted per unit of indexing time, which is in its turn influenced by the use of titles or key-

words in the system, the explicitness of the titles, and whether the summaries are sufficiently informative for the services' special interest. There is likely to be such a close link between an item's coverage in indexing services and its citation by authors, that analyses of citations can be of very little use for comparing journals already indexed with those not yet scanned. In any case, all such analyses need to be as densities of citations per citable item (Garfield's impact factor<sup>6</sup>). Comparisons of such densities for the same titles before and after inclusion in an indexing service would be of great interest.

2. Which items should be selected for current awareness. In this case, the newness of items precludes the existence of citation or library use data. But surveys of the occurrence of keywords per search profile might perhaps be relevant.
3. Which records to "retire" from an active file, and when. The system designer needs some measure of the number of relevant recalls per unit of memory store or of the number of times particular keywords appear in search profiles. In judging whether a recall rate is too low for retention in an active file, the great variations in the fashionableness and topicality of search topics must be remembered, and there should be provision for recovering relegated records from the "passive" file as interests change. Nearly all systems have been designed on the tacit assumption that items a few years old are of little interest. The few library use studies that have related use data to the amount of material available for use suggest that this may be a fallacy and that, for retrospective searching, greater age

does not necessarily indicate lower relevance or value.

#### CONCLUSION

As will have been seen, very few citation or library use studies so far have given helpful information. This is partly because the data need to be collected locally on uses of the local library or file. However, published studies could go much farther than they do, first, in pointing out their severe limitations and, secondly, in providing such information as uses per subscription cost, uses per foot of shelf, uses per article, recalls per keyword, etc. What would be of great value is a collection of information on the size and growth of a wide range of individual journals in terms of articles, of pages, and of thickness (unbound, but without advertisements, etc.).

#### REFERENCES

1. J. Michael Brittain and Maurice B. Line, "Sources of Citations and References for Analysis Purposes: A Comparative Assessment," *Journal of Documentation* 29:72-80 (March 1973).
2. Maurice B. Line and Alexander Sandison, "'Obsolescence' and Changes in the Use of Literature with Time," *Journal of Documentation* 30:283-350 (Sept. 1974).
3. Maurice B. Line, "Optimization of Library Expenditure on Biochemical Journals," *Journal of Documentation* 31:36-37 (March 1975).
4. Alexander Sandison, "The Use of Older Literature and its Obsolescence," *Journal of Documentation* 27:184-99 (Sept. 1971).
5. Alexander Sandison, "Densities of Use, and Absence of Obsolescence in Physics Journals at MIT," *Journal of the American Society for Information Science* 25:172-82 (May-June 1974).
6. Eugene Garfield, "Citation Analysis as a Tool in Journal Evaluation," *Science* 178: 471-79 (Nov. 1972).

## Allocating the Book Budget: An Economic Model

*A model is presented in which the division of library resources among competing interests is based upon considerations of economic efficiency. The complete model cannot be made operational until better means are developed to measure library-resource units. It is argued that allocation decisions should depend upon the prospective usage rate of materials, explicit value judgments about how much such use contributes to the university's goals, and costs.*

**J**OSEPH J. KOHUT RECENTLY PROPOSED A MODEL for dividing a library's budget among departments and between serials and monographs in a time of inflation.<sup>1</sup> While his goal of making explicit decisions which are usually implicit is admirable, his model is defective due to its own implicit assumptions. This paper will summarize Kohut's model; present an alternative model; and discuss the application of the alternative model.

### THE KOHUT MODEL

Kohut begins with two assumptions: (1) each department is assigned a certain number of library-resource units; and (2) the resource units for each department are divided between monographs and periodicals. (Although this paper will refer to each academic unit as a department, the model can be used for larger or smaller units, such as en-

tire colleges or parts of departments. It may also be used by nonacademic libraries in dividing their budgets among subject areas. The library-resource unit is a volume as defined by and reported to the U.S. Office of Education in the annual Higher Education General Information Survey.)

The problem with which Kohut is concerned is that the rate of price inflation of monographs and serials in different academic fields is very uneven. For example, from 1967-69 to 1972 the price of chemistry and physics periodicals rose 186 percent, compared to only 26 percent for art periodicals.<sup>2</sup> If each department receives a constant share of the library's budgeted expenditures, there must be a relative reduction in the number of resource units acquired by departments whose price indexes rise more than average. Kohut considers this reduction inappropriate, since the initial division of resource units was presumably optimal. Thus, given uneven rates of inflation, an "imbalance" develops.

As an alternative, Kohut suggests that each department should receive a constant share of the total resource units which the library acquires, not a con-

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stant share of its expenditures, as is customary. If this advice is followed, departments for which the rate of price inflation is higher will receive a larger share of the total expenditure budget.

#### THE ALTERNATIVE MODEL

This model represents an application of basic economic principles to library budget decisions. Although the discussion will deal with departmental allocations, it can also be applied to the monograph-serial and material-staff choices. The model applies not only to the inflationary situation which Kohut considers, but also to the noninflationary problem (which Kohut ignores) of how the division of resources should be undertaken in the first place. We assume, as Kohut did, that library resource units can be satisfactorily measured. The consequence of relaxing this assumption is analyzed in the following section.

The basic criticism of Kohut's model is that it ignores considerations of economic efficiency. Simply stated, efficiency requires that the library budget be allocated so as to equate marginal benefits (MB) and marginal costs (MC) for each department.<sup>3</sup> These concepts will be explained in the following paragraphs.

The benefit of a resource unit depends upon the contribution which the library resources make to the educational objectives of the university, whatever they may be. The estimation of how large these benefits are is admittedly rather difficult, but it must be done. Some value judgments are implicitly made in any case.

The marginal benefit of a resource unit is the change in total benefits when the number of resource units changes one unit. The marginal benefits of resource units for department P are shown by curve  $MB_p$  in Figure 1. The curve has a negative slope because the marginal benefits from resource units

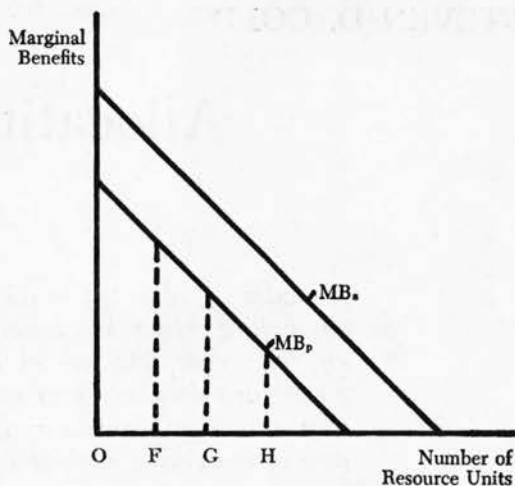


Fig. 1  
Marginal Benefit Curves for P and S

tend to decline as the number of units increases. In other words, the first few monographs and serials,  $OF$ , have very great benefits, but when a larger number are available, such as  $OG$ , each additional unit provides a smaller benefit. When the library becomes very large, as at  $OH$ , the marginal benefits are even smaller.

The marginal benefit for material in department S's field is shown by  $MB_s$ . (This paper throughout analyzes the simple case in which there are only two or three departments, but it can easily be extended to all of the colleges of a large university.) It is higher than  $MB_p$ , because library resources play a greater role in the educational process in S than P, as the courses are taught at this particular university. This may be, for example, because in P greater use is made of computer facilities rather than the library or simply because S has more students.

The marginal benefit curve may not only differ for various departments at a given university but also for the same department at different universities. For example, the marginal benefits of a given collection of books for use by sociology students at University Y are like-



ly to differ from the benefits at University Z if the schools differ in the size of their student bodies or academic emphasis.

The second element in the determination of budget size is marginal costs, which are the change in total costs when there is a change of one unit in the number of resource units. In other words, the marginal cost is the price of a resource unit, including purchase price and such costs as cataloging, ordering, and bill-paying.

The efficient size of each department's budget is the number of resource units at which marginal benefits equal marginal costs. This is the level of output at which the difference between total benefits and total costs is maximized. (If marginal benefits are greater than marginal costs, there will be a net gain from expanding the size of the budget since the rise in benefits will exceed the rise in costs. If marginal benefits are less than marginal costs, there will be a net gain from contracting the size of the budget as the reduction in benefits will be smaller than the reduction in costs. This expansion or contraction should continue until  $MB = MC$ .)

Although it is not necessary, for the

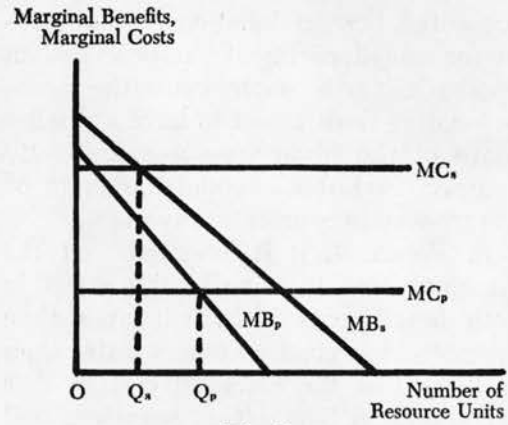


Fig. 3  
Unequal Marginal Benefits and Costs

sake of simplicity marginal costs are assumed to be constant in Figure 2 and subsequent figures. In Figure 2 marginal costs are equal in departments P and S. In this case, department S should receive a larger number of resource units ( $OQ_S$ ) than department P ( $OQ_P$ ).

The case in which marginal costs differ between departments is illustrated in Figure 3, where the benefit curves are as in Figure 2, but the marginal cost of library material for S is twice as high as for P. As the curves are drawn, department P should receive a larger number of resource units ( $OQ_P$ ) than department S ( $OQ_S$ ). However, it is still possible that expenditures for S will be higher than for P ( $MC_S \times OQ_S$  compared with  $MC_P \times OQ_P$ ). Also, if the positions of the curves were different, department S might receive more resource units than P: the result depends on the distance between the MB curves compared to the distance between the MC curves.

The Appendix analyzes the important case in which the benefit curves are identical but marginal costs differ. It clearly shows the loss which results from ignoring cost differences in allocating resources.

The final issue to be considered is the effect of inflation on departmental budget allocations, the question which Kohut considered. According to the model

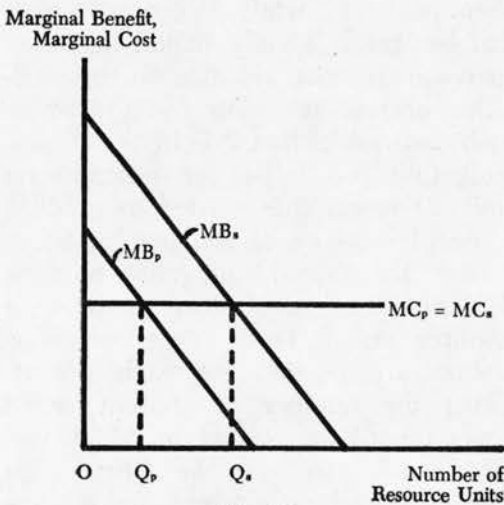


Fig. 22  
Equal Marginal Costs and Unequal  
Marginal Benefits

presented here, if inflation is more rapid for one department's resources than another's, it will usually cause the rapidly inflating department to have a smaller share of the library-resource units. By contrast, in Kohut's model the share of library-resource units is invariant.

In Figure 4, it is assumed that the marginal cost is initially the same in both departments,  $MC_1$ . If inflation then raises the marginal cost in S faster than in P, so that the marginal cost in P is  $MC_{p2}$  and in S is  $MC_{s2}$ , resources will probably fall more in S than P,

$$OQ_{s1} - OQ_{s2} > OQ_{p1} - OQ_{p2}.$$

This definitely will be true if the slope of  $MB_s$  is not steeper than the slope of  $MB_p$ . If  $MB_s$  is steeper than  $MB_p$ , meaning that marginal benefits in S rise more rapidly than in P as resources are reduced, it is possible that S may finish with a larger share of resource units, even though the rate of inflation is higher in S. Which department winds up with a greater share of expenditures also depends on the shape of the MB curves and the difference in the rate of inflation.

#### APPLICATION OF THE MODEL

Thus far this paper has followed Kohut's procedure of assuming that there is something called a "resource unit" which is to be distributed. In fact, this ignores the troublesome question of how resource units should be measured. It is not satisfactory to simply use the definition of resource units by the U.S. Office of Education as Kohut recommends. This practice is defective because it equates all library volumes regardless of length or quality.

For example, Kohut cites data showing that the average cost of monographs at Portland State University is nearly three times as high in physics as in education.<sup>4</sup> He interprets this as evidence that resource units in physics are more expensive. On the contrary, it may sim-

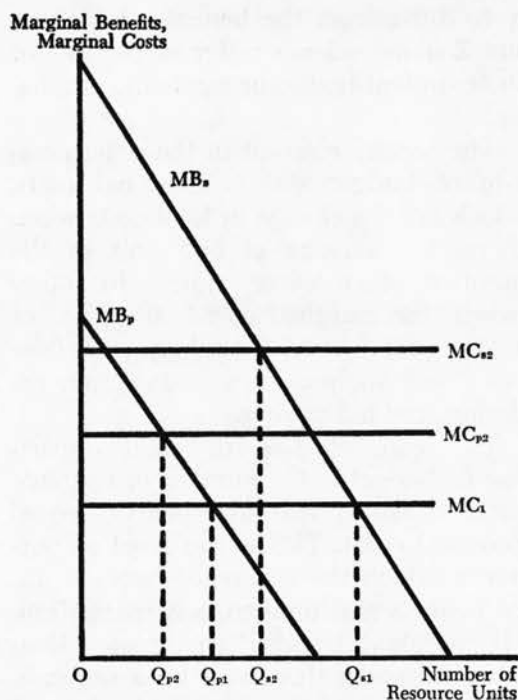


Fig. 4  
Impact of Inflation

ply mean that literary conventions are such that physics monographs are much longer than education monographs. The equivalent contents of one work in physics might be split into several in education.

The preceding argument has two implications: (1) while Kohut is correct that budgeting ideally should be based on resource units, reliance on this definition of resource units could produce such bad results that it is better to base budgeting on dollars of expenditure; and (2) research is needed to produce a useful measure of resource units.

How, then, should budgeting be done if there is no satisfactory measure of resource units? Three pieces of information are needed for each department: the number of student credit hours taught, the extent to which students make use of the library for courses in each department, and a value judgment about how important such use is in the program of the university. To-

gether these three ingredients determine the benefits from library resources provided for each department.

Table 1 presents an illustration for three departments, J, K, and L. J has more credit hours than the other two,

TABLE 1  
HYPOTHETICAL DATA  
FOR BENEFIT ESTIMATION

	Academic Department		
	J	K	L
Student credit hours	1,500	1,000	1,000
Usage rate per credit hour	10	10	20
Value weight	2	1	4
Total weighted usage	30,000	10,000	80,000

but L has greater usage (as measured by some index), and each unit of usage in L is valued four times as much as in K and twice as much as in J. Multiplying each of the three lines together produces a "total weighted usage." Since L has two-thirds of the weighted usage (80,000/120,000), J has one-fourth, and K one-twelfth, they should each receive those proportions of the budget. (Two complications are not mentioned in the text. The data in Tables 1 and 2 should refer to the prospective use of newly acquired library material, not simply the use of already-acquired material. Also, the value weights are not constant but should vary depending on how much material is acquired.)

The value of this model is that it makes explicit the factors which affect the optimal division of the budget. For example, consider the data in Table 2, in which each department receives an equal budget of \$15,000. Such an equal allocation can only be optimal if the value weights are as follows: J, 1; K, 1.5; L, .75. (Total unweighted usage is 15,000, 10,000, and 20,000 respectively. Dividing each of these into \$15,000 yields 1, 1.5, and .75 respectively. Only if these—or their linear transforma-

tions—are the value-weights, is it correct for each department to have equal budgets.) That is, the value weight for K is twice as great as for L and 1.5 times as great as for J. The question which must then be asked is whether such value-weights are defensible. Is there any valid justification why usage in K should count more than in J and L? If not, then K should receive lower expenditures.

The methodology presented here is a special case of the model of the preceding section. The complete model is

TABLE 2  
HYPOTHETICAL BUDGETARY DATA

	Academic Department		
	J	K	L
Student credit hours	1,500	1,000	1,000
Usage rate per credit hour	10	10	20
Budgeted library expenditures	\$15,000	\$15,000	\$15,000
Total unweighted usage	15,000	10,000	20,000

not operational if resource units cannot be measured satisfactorily. The methodology here amounts to assuming that marginal costs are uniform for all departments. The student credit hours, usage rates, and value-weights determine the shape of the MB curve.

#### CONCLUSION

The basic argument of this paper is that the division of resources within a library should be based upon considerations of economic efficiency, meaning that it should explicitly consider the benefits and costs of alternative uses of funds. The optimal distribution of funds must be determined annually in light of the benefits and costs at the time when the decision is made. This is one basic difference from Kohut's model, in which it was assumed that the optimal distribution of resource units is unchanging.

Three complications must be recognized. First, it has been assumed that the library is free to expand to the point where  $MB = MC$  for each department. In a period of tight budgets, resources might not be sufficient to reach that level. If so, the ratio of marginal benefit to marginal cost should be equalized for all departments. The type of questions which must be faced are precisely the same as in the situation analyzed in this paper.

Second, the analysis has assumed that benefits from library use can be measured. Obviously, this is not a measurement whose accuracy everyone will agree upon. But making value judgments is absolutely inescapable. While to some extent estimating benefits involves assessing intangibles, it can also rest part-

ly on research into the extent and type of use which is made of resources provided to each department.

Finally, it has been assumed that efficiency is the only goal of budgeting. This contrasts with Kohut, who considered only equity. It seems to this writer that a comment about less-developed countries is also applicable to many libraries: "They are too poor to despise efficiency."

#### REFERENCES

1. Joseph J. Kohut, "Allocating the Book Budget: A Model," *College & Research Libraries* 35:192-99 (May 1974).
2. *Ibid.*, p.194.
3. See, e.g., A. F. Schreiber et al., *Economics of Urban Problems* (Boston: Houghton, 1971), chapter 2.
4. Kohut, "Allocating the Book Budget," p.198.

#### APPENDIX

A hypothetical example can be cited to show the loss resulting from ignoring cost considerations. Suppose that the marginal benefit curves for two departments are identical but that marginal costs are twice as high for one of them, S, as in Figure 5. If costs are ignored, resources will probably be divided equally, so that each receives  $OQ_c$ . But this involves sacrificing benefits which could be obtained by giving  $OQ_s$  to S and  $OQ_p$  to P. By expanding resources for P from  $OQ_c$  to  $OQ_p$ , there is a gain equal to the triangle XYZ, since marginal benefits exceed marginal costs until  $OQ_p$  is reached. By contracting resources for S from  $OQ_c$  to  $OQ_s$ , there is a gain equal to triangle VWX, since marginal costs are greater than marginal benefits. Thus, a library is wasting resources if it gives each department an equal share of resources and ignores costs.

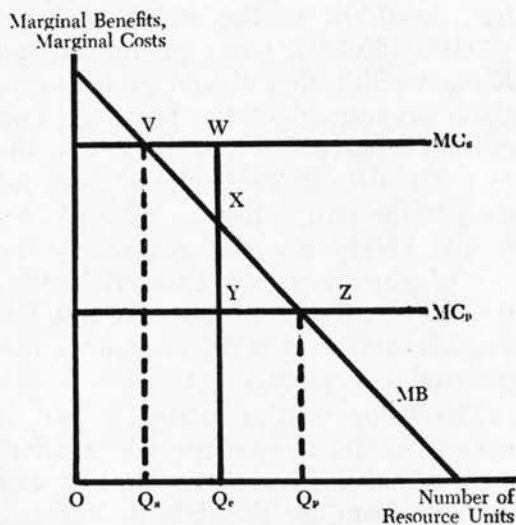


Fig. 5  
The Loss from Ignoring Cost Differences



## Allocating the Book Budget: Equity and Economic Efficiency

*Gold's cost-benefit model for allocating the book budget is critiqued from the point of view of practicability, economic theory, and equity. It is concluded that allocative formulas are preferred alternatives for distributing the book budget among departmental funds. Economic efficiency via cost-effectiveness analysis is suggested as potentially useful for within fund acquisition of library-resource units.*

THIS PAPER WAS ORIGINALLY CONCEIVED as a brief discussion of Gold's marginal cost-benefit model for allocating the book budget among academic departments.<sup>1</sup> However, it soon became apparent that a more lengthy paper was necessary. Several features of cost-benefit analysis must be explored in order to put the marginal cost-benefit model in perspective. Furthermore, Gold advocates economic efficiency versus equity, an issue that challenges a fundamental premise by which librarians have traditionally allocated the book budget. This problem brings up the role of allocative formulas and their validity. Finally, there was the need to comment on cost-effectiveness analysis and its potential impact on economically efficient acquisition of library-resource units.

### DIFFICULTIES OF COST-BENEFIT ANALYSIS

In their oft-cited review article, Prest and Turvey list several limitations in principle to cost-benefit analysis.<sup>2</sup> Among these is the problem of intangible benefits; that is, those benefits that do not

lend themselves to quantification. The scope of this problem is magnified for complex social institutions/programs wherein there are many different beneficiaries and many kinds of benefits, both personal and social. Within this category are academic libraries with multiple objectives (except in the most general sense) and diverse readership with diverse needs. The problem of benefit enumeration is, therefore, exceedingly difficult, if not impossible. Nonetheless, the analysis demands that all benefits, many of which are subtle and indirect, be listed without double counting.

The evaluation of intangible benefits must also be considered, for it is insufficient that they be merely noted. But how does one put a numeric value on such personal reading experiences as esthetic appreciation, joy of discovery, insight, boredom? Or on social benefits such as the educative value of reading, information as a community resource? Even if some benefits are quantifiable, they must be valued in dollars. Most of these are not money-valued benefits; that is, their worth has not been established in a competitive marketplace. It may, with considerable effort, be possible to assign shadow prices or arbitrary

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weights, but it is doubtful whether these would add much to decisions made on the basis of intuition or experience.<sup>3</sup> In any case, incommensurables cannot be ignored, a danger not uncommon in cost-benefit analyses. On the other hand, bias must not be introduced by under or over-evaluation. To simply list incommensurables separately is inadequate if the bulk of the benefits cannot be assigned reasonable dollar values. In his summation of the first Brookings conference on government expenditures, Dorfman concludes:

The practitioners were very skeptical and inclined to doubt whether the most important social effects of government investments could ever be appraised quantitatively by cost-benefit analysis or any other formalized method. One of them likened the problem to appraising the quality of a horse-and-rabbit-stew, the rabbit being cast as the consequences that can be measured and evaluated numerically, and the horse as the amalgam of external effects, social, emotional, and psychological impacts, and historical and aesthetic considerations that can be adjudged only roughly and subjectively. Since the horse was bound to dominate the flavor of the stew, meticulous evaluation of the rabbit would hardly seem worthwhile.<sup>4</sup>

The rabbit is neither sufficiently large nor the horse sufficiently small to make a significant quantitative impression on the book-budget stew.

There is yet another impediment to describing the marginal-benefit curves demanded by Gold. Benefits must be measured annually for each curve, one for each academic department. There must then be a single, objective value-measure of benefit applicable to all departments. This point introduces the problem of incomparabilities. The university is a pluralistic society with a complex mix of program objectives (e.g., teaching; research; providing a liberal

education; training businessmen, teachers, etc.). To take only major reference tools, for example, would all patrons agree as to the absolute value of the *Art Index*, *Business Periodicals Index*, *Chemical Abstracts*, *Bibliography of the Modern Language Association*? Because the value of intangible benefits is primarily dependent on one's point of view, there is no single measure that could be agreed upon. Willis H. Shapeley has commented:

In theoretical discussions, it is nice to visualize a curve, with "decisions" being made by picking the maximum or something that is lower or higher than something else. But for utility in the real world of decision-making, agreement is needed, not only on the many inputs to the measure, but also on the validity of the measure itself, including the underlying theoretical concepts and method of calculation. The possibilities of getting a measure with enough objectivity so that people whose interests are going to be adversely affected will accept it as a judge or a major tool in the decision-making seem to me very small indeed.<sup>5</sup>

It is, therefore, naive to assume that fundamental differences in outlook among the diverse groups comprising a university can be resolved and an objective value-measure of benefit devised. How then can the library, which is obligated to support this heterogeneous group of users, all of which are competing for library resources, presume to make the value judgments necessary to produce a cost-beneficial solution?

In addition to these problems relating to the vertical axis of Gold's marginal cost-benefit model is a major difficulty with the horizontal axis. There must be a uniform measure of output; that is, a unit of consistent size and quality. Since there is no good correlation between quantity and quality of literature output, such a measure cannot be

derived. It is unreasonable, for example, to expect that a long novel (or part thereof) is always "better" than a short poem. Moreover, there is the difficulty expressed above in that not everyone would always agree on what is "better" because "better" is a subjective concept. Even if these obstacles could somehow be overcome, such a hypothetical unit would be unworkable in practice. Librarians *must* deal with library-resource units. The unit of output of the book budget is *a monograph, a serial, etc.* Though discrete items, they are non-equivalent, nor were they intended to be. To put it another way: generation of the marginal-benefit curves requires that library-resource units be homogeneous. Neither are they, nor can they be homogeneous because virtually all are copyrighted. In this sense homogeneity is illegal.

The notion of copyright raises the question of monopoly. Monopoly prices disturb the conditions of Pareto optimality and create inefficiencies in Gold's sense of the word. The rules of "the general theory of the second best" apply when any element assumed by the model is not fulfilling the rules of general economic equilibrium. Though the rules of second best are not well developed, it is a fair interpretation that if all conditions for equilibrium cannot be met, then none of them should be enforced.<sup>6</sup> Thus, Gold's "rules" for allocating the book budget, which are imitations of the conditions for general equilibrium in a competitive economy, may produce less efficiency, not more, since elements of monopoly are inescapable.

In effect, Gold is advocating a planning programming and budgeting system (PPBS) for every subject department of the library. A standard objection to such an approach is that a full cost-benefit analysis of any public expenditure is meaningful only when

compared to similar studies of all other expenditures. That is, a comparative study of each book in every library is theoretically required. The time and cost of such a study would be overwhelming, particularly when spillovers, uncertainties, inadequate information, time-stream cost-benefit discounting, and other difficulties create distortions unless compensated.<sup>7</sup>

Finally, economists cannot agree on the criteria to judge a professionally acceptable cost-benefit analysis. Harburger observed "the need for an accepted set of professional standards for this type of study should be obvious."<sup>8</sup> The purpose of Harburger's article was to suggest three criteria. One of these criteria has been challenged by Boadway, who concluded that it improperly ignored equity relations which must be weighted on "non-economic grounds."<sup>9</sup> Since economists can't agree on the criteria to judge a good cost-benefit analysis, how can they expect librarians to do so?

#### ECONOMIC EFFICIENCY AND EQUITY

There appears to be a failure by Gold to recognize that allocation of library-resource units is not so much a capital investment project as it is one of general welfare economics. In business it is obvious that profits (benefits) should be maximized for the concern. In the matter of "public" fund expenditures, such as a library, where there are many beneficiaries, the issue is not so clear cut. Moreover, the library's goal is to produce mainly intangible benefits, not to increase future income. When benefits are diffuse, mainly noneconomic, and nontransferable into standard units of output, the cost-benefit approach is inapplicable.

In general welfare economics there are really two questions that must be answered: (1) Is the program economically efficient? and (2) Is the distribu-



tion of resources "desirable"? According to Weisbrod:

... advice by economists to decision makers tends to be restricted to questions of the first type. At the same time actual decisions do, and should, also reflect questions of the second type. As a result, economists often are disappointed that their advice carries little weight, and decision makers are disappointed that economists do not provide more complete advice.<sup>10</sup>

Whether economic efficiency is sufficient in itself is a moot point. The fact is that library administrators *are* concerned about equity and the direction of collection development. These concerns have been evident at least since allocation by academic department became common at the turn of the century.

Part of the problem here is a confusion of roles between the analyst and the decision maker. According to Bonnen, for example, the question of who should benefit is a normative matter involving value judgments that an economist as a scientist is not in a position to make.<sup>11</sup> Similarly, the need for explicit decisions in allocation of the book budget is not obviated by an assignment of costs and benefits and simply allowing the resources to fall as they may. In truth, cost-benefit analysis is not even a politically neutral tool, for like it or not there will likely be pressures depending on whose ox is being gored.

The danger that the analysts will dictate decisions is very real for:

We live in a culture that worships quantities. A computer printout on tissue paper can in a political environment thicken into an arras behind which no one can see. It insulates against common sense. A man who says, "My experience and judgment tells me *this* should be done," is hard put to defend his opinion against a man who says, "The computer tells me *that* should be done." In which of

these men it is wise to put one's faith depends on how much of the hard-bitten reality has been conveyed to the computer. In other words, the opportunity cost of benefit-cost analysis, narrowly defined can be the debilitation of the power of judgment.<sup>12</sup>

We do not mean to deny the utility of mathematical models, or even cost-benefit analysis where applicable. But their limitations must be realized, and the analysis alone must never be allowed to preempt good judgment in matters that are largely "noneconomic" and "non-scientific."

#### ALLOCATING BY FORMULA

Gold seems to think that inefficiencies will result by any allocative model not in accord with the rules governing the general economic equilibrium. In fact, it has been argued that quick rules of thumb about pricing and purchasing that keep costs of decisions down actually increase the probability that the system acts the way the theory predicts.<sup>13</sup> Gordon concluded that to the extent "rules of thumb" used by decision makers are inconsistent with theory, it is because the theory is weak.<sup>14</sup> Quick rules of thumb or formulas for allocating the book budget are not, therefore, without economic efficiency. In fact, these formulas meet another frequently mentioned justification for cost-benefit analysis. That is, they make explicit factors formerly unconsidered or only intuitively sensed in the decision-making process.

Ever since the Clapp-Jordan formula for estimating liminal adequacy of academic libraries, value judgments expressed by weighing factors have been an important aspect of formula budgeting. In general, four major factors have been considered in the allocative formula: subjective judgments based on collection evaluations and historical inequities, size of academic departments,



level of program and usage, and literature size. All emphasize the importance of equity.

Collection evaluation and standards were common long before allocation by formula. The literature on this topic is extensive and varied.<sup>15</sup> The process is obviously subjective and dependent on knowledgeable analysts. An element of "objectivity" may be introduced by using numeric guidelines for allocating book funds according to preestablished, arbitrary standards of adequacy. It is generally assumed that there is some correlation between the size of a collection and its value.

Goyal stressed the importance of department size.<sup>16</sup> He initially recognized the importance that society and the university attach to the work of a given department. The problem is greatly simplified by assuming that society and the university attach equal importance to the work of each department and that bias in favor of one or another would be expressed in the size and growth of such departments. Thus, allocation by departmental size allows librarians to avoid independent value judgments between incomparabilities (e.g., whether physics is more important than philosophy). The judgment is, in fact, in large part made for society and the library by the university, including the students.

The organizational factor in allocation has been further refined by describing departments according to level of program. Burton, for example, used weighing factors based on library usage (as measured by circulation data) for lower and upper division undergraduates, graduate students, and faculty.<sup>17</sup> Thus, usage is considered in conjunction with department size and composition.

McGrath described departments by their curriculum which he related to annual literature output for each subject.<sup>18</sup> Literature output and other vari-

ables were later submitted to factor analysis as a basis for an allocative formula.<sup>19</sup> Inherent in the literature-size factor are several assumptions. For example, the potential utility of a given subject literature is proportional to the size of the literature of that field regardless of the subject field. This assumption avoids such irreconcilable arguments as: "One book in physics is worth three books in education." (In fact, *no* book in education may be considered of any value to a physicist, and vice versa.) The assumption also avoids such unprovable—given the present state of the art—statements as: "Quality control is higher in physics than in education, therefore, physics books are potentially more valuable to a physicist than education books to an educator." Another obvious assumption is: If books/serials are not particularly important to a "reader" in a given subject, then fewer books/serials will be published in that subject than in more literature intensive fields. Or, to put it more simply: Those disinclined to read are disinclined to write. Given the above assumptions, it seems reasonable, from the point of view of equitable access to the literature, that annual literature output for each subject be considered in allocating the book budget. All other factors being equal, each department would receive an equal percentage of the total annual literature output in the corresponding discipline.

Dillehay used the book review literature to compile quantity and cost figures for each subject.<sup>20</sup> These data were then used in an "augmentation" formula for allocating the book budget. An additional advantage of this approach is a book-review file which is an aide in evaluating proposed purchases. Implicit in Dillehay's model is an understanding that allocation has two aspects: (1) an equitable distribution of books among funding units; and (2) an efficient allo-

cation of funds within each funding unit. This distribution is in accord with the heterogeneity of users/needs on one level and a more or less homogeneous group of users/needs on another.

Once an equitable distribution of resources is achieved, Kohut is concerned with maintaining the desired balance of library-resource units among the various funding units.<sup>21</sup> Like Burton,<sup>22</sup> he recognizes the need to differentiate acquisitions by form of publication (monographs, serials) and that the cost and relative importance of monographs and serials vary by subject. Both employ library-resource units as a basis for allocation. Burton, however, is interested in deriving book-budget requirements to support academic programs. Kohut is concerned with the opposite problem wherein a book budget which is given must be appropriately distributed by form of publication (monograph, serial) within each funding unit. Kohut's correction is intended to adjust for annual changes in the total book budget and/or fluctuations in average monograph and serial costs by subject. (Kohut's correction has been replaced with a simple algebraic solution devised by Gary Sampson, Library, Portland State University. It has been successfully applied in a pilot study using internal cost data generated in the last two years.)

It is assumed that there are no intentional changes in the relative distribution of library-resource units among funding units (e.g., to reflect changes in institutional programs). By tying budget allocation directly to library-resource units, equity is maintained, and an explicit view of collection development and its cost by subject and form of publication is presented.

#### BOOK SELECTION AND ECONOMIC EFFICIENCY

A strong case for economic efficiency may be made on the level of individual

departmental funds. A promising tool is cost-effectiveness analysis, a study designed for single objective problems and more or less homogeneous groups of users and values. Moreover, it avoids the obstacles of disparate benefits and their dollar values. The concern is not with collection worth, but with collection effectiveness (measured by usage) in relation to costs.

Cost-effectiveness analysis may be used as an adjunct to more subjective, traditional means of book selection. Lancaster, for example, considers cost-effectiveness in relation to coverage (collection content) of an information retrieval system.<sup>23</sup> The calculation of pay-offs is becoming more promising with advances in bibliometrics (e.g., Bradfordian-Zipf distributions, literature obsolescence rates, acquisition characteristics curves, etc.). Such bibliographic studies are becoming a prominent feature of library research.<sup>24</sup> However, as the possibilities of cost-effectiveness analysis become greater, we must be ever alert to its limitations:

It is important to remember that all analysis of choice falls short of scientific research. No matter how we strive to maintain standards of scientific inquiry or how closely we attempt to follow scientific methods, we cannot turn cost-effectiveness analysis into science. Its objective, in contrast to that of science, is primarily to recommend—or at least to suggest—policy, rather than merely to understand and predict. . . . Human judgment is used in designing the analysis, in deciding what alternatives to consider, what factors are relevant, what the interrelations between these factors are, and what numerical values to choose, and in interpreting the results of the analysis. This fact—that judgment and intuition permeate all analysis—should be remembered when we examine the results that come, with apparent high precision, from analysis.<sup>25</sup>

Together with a recognition of user

idiosyncracies and the experience, common sense, and intuition of knowledgeable bibliographers, cost-effectiveness analysis may eventually help to improve the economic efficiency of book selection.

#### SUMMARY

There are a multitude of difficulties in principle and practice that militate against a cost-benefit resolution to allocating the book budget. In fact, there is disagreement among economists that cost-benefit analysis can ever be done well for complex social institutions. It is, therefore, unreasonable to expect that librarians do the kind of detailed economic analysis that economists themselves do badly. In a more general sense, our quarrel is not with economic efficiency *per se*, but with those who would make economic efficiency the *only* rele-

vant value. It is prudent to keep in mind the admonition of Wildavsky:

It seems unfair to blame the evangelical economizer for spreading the gospel of efficiency. If economic efficiency turns out to be the one true religion, maybe it is because its prophets could so easily conquer.<sup>26</sup>

In problems of welfare economics, equity must be considered in addition to economic efficiency. Thus, the concept of equity is justly entrenched in the library profession. Though equity is dominant in formula budgeting for books, there are also economic efficiencies realized by such rules of thumb. Furthermore, economic efficiency via cost-effectiveness analysis may have a role in book selection as bibliographic investigations of subject literatures progress.

#### REFERENCES

1. Steven D. Gold, "Allocating the Book Budget: An Economic Model," *College & Research Libraries* 36:397-402 (Sept. 1975).
2. A. R. Prest and R. Turvey, "Cost-Benefit Analysis: A Survey," *Economic Journal* 75: 683-735 (Dec. 1975).
3. Roland N. McKean, "The Use of Shadow Prices," in Samuel B. Chase, Jr., ed., *Problems in Public Expenditure Analysis* (Washington, D.C.: The Brookings Institution, 1968), p.33-77; Julius Margolis, "Shadow Prices for Incorrect or Nonexistent Market Values," in Robert H. Haveman and Julius Margolis, eds., *Public Expenditures and Policy Analysis* (Chicago: Markham, 1970), p.246-90.
4. Robert Dorfman, "Introduction," in Robert Dorfman, ed., *Measuring Benefits of Government Investments* (Washington, D.C.: The Brookings Institution, 1965), p.2.
5. Willis H. Shapeley, "Comments" on Frederic M. Scherer, "Government Research and Development Programs," in Robert Dorfman, ed., *Measuring Benefits*, p.61-62.
6. R. G. Lipsey and Kelvin Lancaster, "The General Theory of the Second Best," *Review of Economic Studies* 24:11-32 (1956).
7. Kenneth S. Allen, *Current and Emerging Budgeting Techniques in Academic Libraries, Including a Critique of the Model Budget Analysis Program of the State of Washington* (Seattle?, 1972). The arguments presented by Allen against PPBS for libraries are valid in the present context.
8. Arnold Harburger, "Three Basic Postulates for Applied Welfare Economics: An Interpretive Essay," *Journal of Economic Literature* 9:785 (Sept. 1971).
9. R. W. Boadway, "The Welfare Foundations of Cost Benefit Analysis," *Economic Journal* 84:939 (Dec. 1974).
10. Burton A. Weisbrod, "Income Redistribution Effects and Benefit-Cost Analysis," in Chase, ed., *Problems in Public Expenditure Analysis*, p.177.
11. James T. Bonnen, "The Absence of Knowledge of Distributional Impacts: An Obstacle to Effective Policy Analysis and Decisions," in Haveman and Margolis, eds., *Public Expenditures and Public Policy*, p.246-90.
12. Ruth P. Mack, "Comments" on Burton A. Weisbrod in Chase, ed., *Problems in Public Expenditure Analysis*, p.220-21.
13. Richard V. Clemence, *Readings in Economic Analysis*, vol. 2, *Prices and Production* (Cambridge, Mass.: Addison-Wesley, 1950). See the articles by F. Machlup and R. A. Lester.
14. R. A. Gordon, "Short Period Price Determin-

- nation in Theory and Practice," *American Economic Review* 38:265-89 (June 1948).
15. George S. Bonn, "Evaluation of the Collection," *Library Trends* 22:265-304 (Jan. 1974).
  16. S. K. Goyal, "Allocation of Library Funds to Different Departments of a University—An Operational Research Approach," *College & Research Libraries* 34:219-22 (May 1973).
  17. Robert E. Burton, "Formula Budgeting: An Example," *Special Libraries* 66:61-67 (Feb. 1975).
  18. William E. McGrath, "Determining and Allocating Book Funds for Current Domestic Buying," *College & Research Libraries* 28:269-73 (July 1967).
  19. William E. McGrath, Ralph C. Huntsinger, and Gary R. Barber, "An Allocation Formula Derived from a Factor Analysis of Academic Departments," *College & Research Libraries* 30:51-62 (Jan. 1969).
  20. Bette Dillehay, "Book Budget Allocation: Subjective or Objective Approach," *Special Libraries* 62:509-14 (Dec. 1971).
  21. Joseph J. Kohut, "Allocating the Book Budget: A Model," *College & Research Libraries* 35:192-99 (May 1974).
  22. Burton, "Formula Budgeting."
  23. F. W. Lancaster, "The Cost-Effectiveness Analysis of Information Retrieval and Dissemination Systems," *Journal of the American Society for Information Science* 22:12-27 (Jan.-Feb. 1971).
  24. Allan D. Pratt, "Libraries, Economics, and Information: Recent Trends in Information Science Literature," *College & Research Libraries* 36:33-38 (Jan. 1975).
  25. Edward S. Quade, "Introduction and Overview" in Thomas A. Goldman, ed., *Cost-Effectiveness Analysis; New Approaches to Decision-Making* (New York: Praeger, 1967), p.8.
  26. Aaron Wildavsky, "The Political Economy of Efficiency: Cost-Benefit Analysis, Systems Analysis, and Program Budgeting," *Public Administration Review* 26:308 (Dec. 1966).



## The Effect of Reduced Loan Periods on High Use Items

*A study was conducted in a university departmental library to determine the effectiveness of satisfying user demand for high use items by reducing the loan period. It was assumed that assigning a one-week loan period to such items would increase their availability to users, thereby increasing circulation. A 20 percent increase in student charges supports the validity of this technique.*

**I**NFLATION, COUPLED WITH LIMITED FUNDS for the purchase of library materials, has necessitated limiting acquisitions in the Physics Library of The Ohio State University. Under these circumstances sporadic complaints from both students and faculty concerning immediate unavailability of titles in the collection has served to point up the need for a review of the effectiveness of library circulation policies.

The Physics Library is one of twenty-one department libraries of The Ohio State University Libraries. The collection contains approximately 36,500 cataloged volumes with an annual circulation of approximately 30,000. However, in the past two years, its circulation has dropped 6 percent and 7 percent respectively. The Ohio State University Libraries has an on-line automated circulation system.<sup>1</sup> Statistics from this system were used to analyze the Physics

Library's circulation record and to compare it to that of the overall library system.

Previous research by one of the authors indicates that circulation in The Ohio State University Libraries follows a standard Bradford distribution.<sup>2,3</sup> A small percent of the titles (3.7 percent) accounts for a disproportionately high percentage of the circulation activity (56.1 percent). It is the basic assumption of this paper that this phenomenon represents a major limiting factor in circulation service. Circulation service, for the purposes of this study, is defined as a measurable activity represented by a patron charging out a book from the library. Any increase or decrease in circulation service is reflected in the number of charges recorded at the circulation desk. This definition of circulation ignores for practical purposes the question of convenience of service for a single patron. We propose that minimizing frustration of many readers for items at their peak of usefulness is preferable to convenience for the single patron for those same items. For example, all other things being equal, it is preferable to have ten patrons charge a high-use vol-

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ume for one week than to have one patron charge the same book for ten weeks. Therefore, any increase in the number of recorded charges (i.e., an increase in the number of patrons served) represents an improvement in circulation service.

Two possible ways to improve access to items in heavy demand are to (1) increase the number of copies available or (2) shorten the loan period. Duplication is not a practical solution in times of severe budgetary restraints and is not considered in this study.

In this paper we report on a method to improve library circulation service by identifying high demand items and then reducing the loan period on such items to one week with unlimited renewal privileges for all users. The normal loan period is three weeks for students and thirteen weeks for faculty. Circulation studies conducted in other university libraries show that there is a marked tendency for books to be kept out until they are due back, regardless of the status of the borrower or the subject matter of the book.<sup>4, 5</sup>

The advantage of an on-line automated circulation system is that user-demand for titles can be readily translated into "saves" or "holds" which generate recall notices. Such notices serve either to prevent user-retention of books in high demand or to alert the library as to which particular titles users are finding currently unavailable to them. In practice, users have shown a reluctance to place "saves," not realizing the potential of the service at their disposal. The purpose of this study, therefore, is to determine if circulation service would be improved by systematic reduction of loan periods for all high-use titles.

#### METHOD

The study was conducted at the Physics Library from April 1, 1974, to June

30, 1974. The Physics Department Library Committee approved the test February 5, 1974.<sup>6</sup>

High demand items were defined as (1) all books charged at least once since June 1, 1973, or (2) those acquired by the library since that date. The validity of this definition is supported by a study of R. W. Trueswell. Trueswell found that 75 percent of the current circulation in the Air Force Cambridge Research Library circulated at least once in the previous year.<sup>7</sup> Trueswell's study corresponds to the finding of Fussler and Simon, who in their 1961 study concluded that the best predictor of future use of a book is past use.<sup>8</sup>

Prior to the test date, the loan period of all physics monographs was reduced to one week on the computer. At the time of charging, low demand items were given the normal loan period. Clerical procedures are explained in a Physics Library internal report.<sup>9</sup> Serial volumes have a regular one-week charge and were not included in the study. Reserve circulation was not included in any statistical data recorded. Students are fined for overdue books while faculty are not. Renewals are unlimited if no "saves" are present. During the three months of the test, only one complaint was received from the faculty concerning the shortened loan period.

No special monitoring was necessary as the statistical reports routinely generated by the circulation system are adequate to record circulation activity. Copies of approximately 60 percent of the charges were retained for further analysis. Circulation statistics as recorded by the computer system for spring 1974 are compared to the same figures for 1973 in Table 1.

#### ANALYSIS AND CONCLUSIONS

The lack of any significant change in

faculty charges suggests a number of possible explanations. Faculty usage patterns are more consistent and less subject to influence by this technique. The lack of an overdue fine policy for faculty removes the motive for returning books more promptly than normally. Faculty loans are not directly comparable to student circulation.

The 20.9 percent increase in student usage is considered significant in view of the decline in library circulation over the previous two years. Student enrollment and faculty have remained fairly stable during this same period. (It is assumed that any possible increases due to increased reading assignments by faculty would be reflected in reserve loans which are not included in this study.) Since readers had unlimited renewal privileges, it would appear that the increase of 231 charges over the same period in 1973 could be considered as

charges to readers whose need would not have been satisfied if the study had not been conducted.

Renewal and "save" activity increased markedly during the period of the study. This is to be expected when loan periods are reduced.

This study has indicated the advisability of considering this technique for incorporation by the entire library system. Variations of the technique, e.g., its modification through the use of the mechanisms of "saves," can be applied to any library where circulation is limited by the lack of availability of high demand items. Whereas in the past it would have been prohibitively expensive to gather statistics on the use of particular titles, now the computer, by this technique, can serve to alert the library to the need for restricted loans on only those titles requiring such qualifications.

TABLE 1  
CIRCULATION STATISTICS, PHYSICS LIBRARY, THE OHIO STATE UNIVERSITY,  
SPRING 1973 AND SPRING 1974

Borrower	Charges		Transaction Change	Renewals		Saves	
	1973	1974		1973	1974	1973	1974
Faculty	1,062	1,053	- 0.8%	444	876	75	82
Students	1,106	1,337	+20.9%	367	1,270	55	85
TOTAL	2,168	2,390	+10.2%	811	2,146	130	167

#### REFERENCES

1. Irene B. Hoadley and A. Robert Thorson, eds., *An Automated On-Line Circulation System: Evaluation, Development, Use* (Columbus: The Ohio State University, Office of Educational Services, 1973).
2. Gerry D. Guthrie, *A Selective Statistical Study of Transaction Activity in a Large On-Line Automated Circulation System* (Columbus: The Ohio State University Research Foundation, 1973).
3. Ferdinand F. Leimkuhler, "The Bradford Distribution," *Journal of Documentation* 23:197-207 (Sept. 1967).
4. Michael K. Buckland, "An Operational Research Study of a Variable Loan and Duplication Policy at the University of Lancaster," *Library Quarterly* 42:97-106 (Jan. 1972). Reprinted in *Operations Research: Implication for Libraries, the Thirty-Fifth Annual Conference of the Graduate Library School* (Chicago: University of Chicago Pr., 1972), p.97-106.
5. Barton R. Burkhalter and P. A. Race, "Analysis of Renewals and Overdues and Other Factors Influencing the Optimal Charge-Out Period," in Barton R. Burk-

- halter, ed., *Case Studies in Systems Analysis in a University Library* (Metuchen, N.J.: Scarecrow, 1968), p.11-33.
6. Virginia E. Yagello, "One Week Loan: New or High Volume Book" (Internal Report, Physics Library, The Ohio State University, 1974), p.1.
7. Richard W. Trueswell, "Some Behavioral Patterns of Library Users: The 80/20 Rule," *Wilson Library Bulletin* 43:458-61 (Jan. 1969).
8. Herman H. Fussler and Julian L. Simon, *Patterns in the Use of Books in Large Research Libraries* (Chicago: University of Chicago Pr., 1969), p.15, 143.
9. Yagello, "One Week Loan," p.3-4.



### Characteristics of Collections

To the Editor:

I feel I should call your attention to a possible error of fact in the article, "Characteristics of Collections Added to American Research Libraries, 1940-1970: A Preliminary Investigation," by Grant T. Skelley (*C&RL*, Jan. 1975). The apparent error appears in Table 4, page 60 (though the consequence of it would be pervasive), where—if I read correctly—William and Mary is placed in the "Private" column.

Although it may occasionally comport itself after the private school-high prestige model, it was purchased by the Commonwealth of Virginia in 1906 and has been—for better, or for worse—a state institution ever since.

*Henry Grunder  
Curator of Rare Books  
College of William and Mary  
in Virginia*

### Response

I appreciate receiving Mr. Grunder's advice about the fiscal support status of The College of William and Mary, and I apologize herewith to the people of the state of Virginia.

Perhaps my assumption that this college belonged in the "private" category was a result of an image created by the "comporting" Mr. Grunder mentions in his letter; perhaps not. But for whatever reason, it never entered my mind to check (as it did

for a couple of dozen other libraries), so the image was well fixed.

Spurred partly by abashment and partly by curiosity, I subsequently have taken an informal poll of thirty-six people, all of them "academics" of one kind or another. I asked whether William and Mary is a "private" or a "public" college. Every one of these people said "private," a few even thought I was pretty dumb to have to ask the question, and some said "Oh, it's *got* to be private." I may feel that because of this I was not alone in my ignorance, and, for that matter, that I was even in good company. But this does not alter the fact that I was in error.

The consequences of the error are more or less "pervasive," as Mr. Grunder suggests. They are also statistically trivial. Ten collections (the number recorded for William and Mary) amount to approximately 0.0068 percent of the total number of collections involved in the study (1,454), and 0.0078 percent of the total number of academic library collections involved (1,283). Percentages reported in the text of the article that involve "Academic/Public" and "Academic/Private" increase or decrease on the order of 1 or 2 percent.

Besides the obvious changes (plus and minus ten) in total number of "Academic/Public" and "Academic/Private," to readjust the figures, the information given in Table 1 about William and Mary's ten collections should be applied where appropriate.

*Grant T. Skelley*

TABLE 1  
COLLECTIONS ACQUIRED BY THE COLLEGE OF WILLIAM AND MARY

Year	Type of Collection	Means Acquired	Source of Gift
1942	3 MS (3 Authors)	3 Gift	3 Unspec.
1943	1 MS (Subject)	1 Unspec.	1 Unspec.
1945	1 Book (Subject)	1 Gift	1 Unspec.
	1 MS (Hetero.)	1 Gift	1 Unspec.
1947	1 Book (Subject)	1 Gift	1 Alumnus
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## BOOK REVIEWS

***Annual Review of Information Science and Technology.*** Volume 9, 1974. Carlos A. Cuadra, Editor. Ann W. Luke, Associate Editor. Jessica L. Harris, Bibliography and Index Editor. Washington: American Society for Information Science, 1974. 457p. \$22.00. (LC 66-25096) (ISBN 0-87715-209-8)

Reviewing a review is not an easy task, but it is especially pleasant in the case of this ninth volume of the *Annual Review of Information Science and Technology*. It is of the same high caliber of its predecessors in the series under the continued editorial

direction of Carlos Cuadra and his associate, Ann Luke. The authors for the individual chapters have been carefully selected, and the continuity and perspective are maintained by the chapter reviewers who are, for the most part, former contributors to *ARIST*.

It seems superfluous to herald this volume and, indeed, this series, as one of the most valuable contributions to the literature since nearly every follower of information science is quite familiar with the annual compilation, but in this case, it bears repeating. Instead of elaborating on the liter-

ary and stylistic qualities of this volume, it seems more important to synthesize the chapters in the review.

Volume nine is divided into four broad categories: (1) Planning Information Systems and Services, (2) Basic Techniques and Tools, (3) Applications, and (4) The Profession. There are individual chapters dealing with the most important developments during 1973 in each of these categories. Since the chapter contributors are eminent in the field, the chapters are filled with the most recent research and applications in the categories.

In the section on "Planning Information Systems and Services," there are three chapters: one which reviews the literature of information systems, one which deals with the importance of the user's needs in information system design and evaluation, and one which focuses on the "economics of information."

The second and shortest section, "Basic Techniques and Tools," consists of Jessica L. Harris' chapter on "Document Description and Representation." This chapter is extremely helpful in sorting out the most significant elements of the move toward standardization of bibliographic data. ISBD (S) and (M), NSDP, MARC, RECON, and SUPERMARC are explained very well, with their interrelationships, complexities, and ambiguities superbly demonstrated. It is this chapter, I feel, that leads to the most optimism about the new trends in information science, for it is in the area of standardization of bibliographic data that real progress can be demonstrated.

The section on "Applications" is the largest and represents the area of greatest activity in 1973. An overview of the state of the automation art is followed by status reports on the many emerging information networks. In another chapter, the "Use of Machine-Readable Data Bases" is examined carefully by Martha E. Williams. (As an aside, I must say that I found Ms. Williams' list, data bases—p.224-230, one of the most helpful sections of the book because it brings together all kinds of data bases in one list.) In the section's last chapter, there is a review of the literature relating to "Document Retrieval Systems and Techniques."

The final section, entitled "The Profes-

sion," focuses on two topics: "The Management of Libraries and Information Centers" and "The Copyright Issue." Michael Buckland notes that 1973 is the year the Management Review and Analysis Program was launched by ARL's Office of Management Studies. Also, Buckland demonstrates that management is receiving increasingly greater attention as evidenced by the number of projects that have been undertaken by many libraries.

Perhaps the most interesting article in *ARIST* is "The Copyright Issue" by Joseph J. Beard. It is the first time that this issue has been addressed in the *Annual Review* and it is noteworthy that the Williams and Wilkins case has stirred such interest primarily because of the consequences it could have on networks. At the time of the article the Supreme Court had not ruled on the case, but, in light of their rather neutral decision, Mr. Beard's proposed solution through an economic process is a most provocative idea.

In summary, this book is well written, and the information contained in it is invaluable. The purchase of this ninth volume of *ARIST* is highly recommended for libraries and for librarians who want to keep abreast of developments in information science.—Deanna Hudson Marcum, Director of Research and Development, Joint University Libraries, Nashville, Tennessee.

Thomassen, Cora E., ed. *CATV and Its Implications for Libraries: Proceedings of a Conference Sponsored by the Illinois State Library and University of Illinois Graduate School of Library Science and University of Illinois Office of Continuing Education and Public Service*. (Allerton Park Institute, Number 19) Urbana-Champaign, Ill.: University of Illinois Graduate School of Library Science, 1974. 91p. \$6.00 (LC 74-620101) (ISBN 0-87845-040-8)

Anderson, LeMoyne W., ed. *Networks and the University Library: Proceedings of an Institute Presented by the University Libraries Section, Association of College and Research Libraries, at Las Vegas, Nevada, June 21, 22 & 23, 1973*. Chicago, Ill.: Association of College and Research Libraries, 1974. 90p.

These publications constitute the pro-



ceedings of two conferences dealing with the external interactions of libraries: the first discussing roles for libraries in linking into cable television systems, and the second dealing with the development of formal organizational structures, or networks, for library interaction. Both publications include papers on advances in electronic media and telecommunication and what libraries are doing and might further do with these capabilities. But because libraries *can*, it does not follow that they *should*—whatever the capability.

In both of these collections, the more perceptive and useful papers are those which go beyond blue-sky speculation or descriptions of projects to focus on whether or why libraries should move in the directions charted instead of merely how.

The Conference on CATV and its Implications for Libraries was itself videotaped and cablecast through the conference center while in progress, as Cora Thomassen notes in the introduction. It is, however, this printed volume which "broadcasts" the proceedings. As to the future of cable television for education and libraries, Donald Mullally expresses guarded optimism in his paper on "Libraries and CATV: Some Hopes and Fears."

... Frankly, I am quite hopeful that CATV will have a profound effect upon education and a very positive effect upon society as a whole, although that attitude may sound too optimistic. (p.5)

Mullally traces some lessons from history, which do not support even guarded optimism.

In the early 1920's David Sarnoff and Lee DeForest predicted that radio would bring education and culture into every home. In general, radio has not lived up to this expectation. . . .

Having failed with radio, there were in the 1940's predictions that television would cure our educational ills, but it has not. Dozens of experiments with educational television have come to almost nothing, despite millions of dollars of support. *Public television*, a somewhat different concept, will probably come to almost nothing. (p.5)

Mullally goes on to argue, not convinc-

ingly to this reviewer, that "there is a great difference" promising greater success for cable television—which has unlimited channel capacity and does not depend on mass advertising.

James Keller provides some facts and opinions relating to commercial cable developments and franchises. Brigitte Kenny reports on applications of cable television which she observed in an investigative trip across the country, and Lawrence Katz provides a blue-sky look at "Potentials of Interactive Cable Television," together with a "Hypothetical Scenario of the Use of Interactive Television by One Family," which is more the stuff of the throwaway Sunday supplement.

Ken Dowlin, Roberto Esteves, and Bobby Mariano describe public cable television applications. Russell Shank concludes the volume, identifying "CATV and Libraries: Issues and Challenges." Shank cites challenges to institutional change which must underlie technological change.

One quotation from Mullally remains with this reviewer:

... do not be impressed with technology for its own sake. Before you commit yourself to a new technology, be sure that it will really do a better job than one of the other technologies available, or that it makes it possible to do a job *you* should really be doing. (p.11)

The volume, *Networks and the University Library*, reports the papers presented at the 1973 American Library Association Pre-Conference. Maryann Duggan began by providing some useful definition and requisite conditions. Brigitte Kenny shares some purposes for which networks are organized.

Frederick Kilgour provided facts and figures on OCLC, and A. H. Epstein gives similar details on Stanford's BALLOTS system. Alice Wilcox describes operations of the MINITEX network in Minnesota, Donald Davidson outlines the multitype TIE cooperative in California, and John Berthel provides information on the MARLIN network for the Middle Atlantic States. These four reports have a certain journalistic, descriptive quality, which limits their usefulness. They are already inaccurate with the passage of time. While useful as discussions

at the conference, their preservation in this volume is less valuable.

Of more lasting interest are papers which probe to the underlying issues. Jean L. Connor clearly identifies ten factors of network success, while Michael M. Reynolds explores similar issues, but gets lost in wordiness:

Efforts to promote cooperation should continue because of the social value for libraries, regardless of the operant facts, since the consequences of the idea of cooperation not being present will be detrimental to the library as an institution and as an organization, and will inhibit the possibilities for developing other alternatives to achieve professionally desirable goals—goals which frequently do not lend themselves easily to operational definitions. (p.51)

Wallace Olsen and Hugh Atkinson provide perceptive papers on constraints influencing network development. As Atkinson states: "Constraints are not to be construed as reasons to avoid networks, but really parameters within which networks exist." (p.57)

Paxton Price looks at some state plans relating to networks, and Gordon Williams examines national plans. Williams proceeds beyond descriptions to critically examine the assumptions in network planning.

Finally, Glyn T. Evans, charged with discussing "Networks: The Future," eschews more of the blue-sky and instead focuses on the prime and more difficult question: What do we want to become?

Both publications reflect quick and inadequately edited transcripts from tapes: a reference to "Urbana-Champagne" (p.30) in the CATV volume, and a citation in the "Networks" report to a paper by Donald Urquhart, director of the National Lending Library in Great Britain, "A National Loan Policy for Syrians" (p.80).

Both reports contain some worthwhile and perceptive papers, and provide useful overviews of topics of current interest.—*John W. Aubry, Coordinator of Library Systems, Five Associated University Libraries, Syracuse, New York.*

Wilson, T. D., and Marsterson, W. A. J.  
**Local Library Cooperation: Final Report on a Project Funded by the De-**

**partment of Education & Science.** (Occasional Publications Series No. 4) Sheffield: University of Sheffield, Postgraduate School of Librarianship and Information Science, 1974. 2 vol. (v.1: 223p. [text]; v.2: 3 microfiche [additional tables and exhibits]) £3.50 (ISBN 0-903522-01-2)

Wilson and Marsterson, with a grant from the British government's Department of Education and Science, explored cooperative projects whereby six Sheffield libraries might increase the availability of their library resources to user groups in higher education. The study included libraries of the university, the polytechnic, the city, the University Institute of Education, the City College of Education, and the Totley/Thornbridge College of Education.

The principal report is printed in volume one. Volume two consists of three microfiche inserted in a pocket inside the back cover of volume one. Over 100 statistical tables and charts compare such variants as resources, expenditures, users, services, and staff.

The report is numbered and subnumbered for easy reference, although scarcely for smooth reading. Nevertheless, the authors occasionally included unrelated information in a paragraph; for example, on page 75 in paragraph 5.5 headed "Cataloguing and Classification" the last two sentences deal with charging systems.

The authors found library cooperation in Sheffield rather limited. The study suggested improved communication links both between librarians and between librarians and patrons in regard to the resources available in the Sheffield libraries. The authors recommended a more in-depth study of a cooperative transport system to facilitate interlibrary loan service; a complete union list of periodicals; coordination of nonbook resources; cooperative cataloging and acquisitions systems; and cooperative purchase and use of computer data bases. Two suggestions beg implementation—including patrons of other libraries in the orientation program of each library and providing familiarization training sessions for staff members at other libraries.

This study should be read by librarians interested in either cooperative library proj-

ects or in library surveys. The survey instruments are excellent, have been tested, and could be easily adapted to fit other locales. In courses on library organization patterns, the comparative descriptions of the internal library organization of each library and the relationships between the libraries in Sheffield should prove of interest.

The somewhat pensive recognition by the authors that the impetus for cooperation must come from above will hopefully motivate chief librarians to exercise a leadership role in developing the appropriate *Weltanschauung* among their professional staff for implementing more imaginative programs of service.—*Elizabeth Snapp, Coordinator of Readers' Services, Texas Woman's University Library, Denton.*

Zachert, Martha Jane K. *Simulation Teaching of Library Administration.* (Bowker Series in Problem-Centered Approaches to Librarianship) New York: Bowker, 1975. 297p. \$18.95 (LC 74-32041) (ISBN 0-8352-0612-2)

Professor Zachert has written the first book on simulation learning that is specifically designed for the preparation of library managers. Although this book has been needed because most of us know little about simulation theory, I found Professor Zachert's style at times annoying. I was horrified, for example, by the "Chapter Highlights" at the end of the chapters in the first two parts which summarize the chapter's contents, as if the reader needed catchwordy reinforcement. Then given this method, why did she not continue it beyond chapter 5? I also found annoying Professor Zachert's intrusion on her materials with her personal class experiences and the reprinted comments of her students' reactions to class assignments. I suppose that I was most annoyed because the book was not what I thought it should have been. Perhaps it could not have been written otherwise because most of us, indeed, need to be trained in the language and use of simulation, and thus only a primer needed to be written. I do wish, nonetheless, that Professor Zachert had not depended upon the literature and style of the professional (secondary?) educationist, but had emulated the engineers instead.

Parts I and II (chapters 1-5) are necessary preliminary matters which delineate simulation and teaching. The simulation model is a selection of the central features of reality. As such, the simulation is not only a representation of reality; it is also a reduction of reality to certain basics so that teaching and learning can occur. If the professor is capable of this style of teaching, the use of simulation in the classroom is much more demanding of the professor than the lecture. The professor becomes more detached from the group of learners and acts as a resource person instead of a deliverer of lecture-packaged truths. A poor professor, a charlatan, can use simulation to cover inadequacies both in knowledge and technique. Use of simulation in the classroom is not only comparatively low in risk to the students. If done properly, it is certainly high in student involvement.

Chapters 1-5 preface the heart of the book, namely, the four chapters of Part III on roleplay, in-basket exercises, action mazes, and games. Of these four subclasses of simulation, the more intriguing to many should be the in-basket exercises and the action mazes, although all four have certain advantages for classroom use. The printing of "The Ann Davis Situation" as an example of an action maze should be appreciated by almost all readers.

I was surprised by the paucity of the discussion on games and by the apparent identification of gaming solely with the board games such as Monopoly and its imitators. There is little on computerized management games. To give Professor Zachert credit, perhaps this neglect is due to the fact that there are not many versions of library management games yet. Nevertheless, it is this area which holds the greatest prospect for us because of its possibilities of overcoming temporal spans and because of its capabilities to handle the mathematical possibilities of the consequences of decisions.

It is good that Professor Zachert has given us our needed primer in simulation of library management. We now need someone to take us one step further: to write a sophisticated version.—*G. A. Rudolph, Dean of Libraries, University of Nebraska—Lincoln.*



McCarthy, Cavan. *Developing Libraries in Brazil; With a Chapter on Paraguay*. Metuchen, N.J.: Scarecrow, 1975. 207p. \$8.00. (LC 74-23681) (ISBN 0-8108-0750-5)

A sensitive academic librarian (University of Leeds) spends thirteen months professionally employed and traveling throughout Brazil during 1971-72. The results are empirical vignettes of frustration, accomplishment, irrationality, and excesses: any perceptive, articulate librarian with Latin American field experience can offer similar fare. McCarthy generally succeeds in describing most types of libraries, the principal problems confronting them, and highlighting innovative aspects worthy of consideration by Western (i.e., North American, British, and parts of Europe) librarians.

Brazilian acceptance of Western library theory and practice emphasizes the dichotomous nature such models have in economically disadvantaged countries. From the sophistication of São Paulo to the anachronisms of Maranhão, effective service often cannot be realized due to the conflict between theoretical objectives and Brazilian reality. McCarthy identifies closed stacks and restrictive or nonexistent loan policies as fundamental problems nationally. After formal education is completed, the "library habit" ceases; hence, in most libraries patrons are the young, but McCarthy suggests Brazilians probably would not trust any age group to return borrowed materials!

Library science education and the difficulties of employment are covered sufficiently for introductory survey purposes in comparative librarianship. Nearly all courses are taught by part-time, practicing librarians, usually graduates of the same institute or university. Because most of the practicing librarians are women with limited geographic and occupational mobility, local placement is common; the implications of endogamy are obvious, as some North American academic libraries know. Professional positions often are part time and government controlled. Many librarians toil in totally unsuitable structures with architectural design inhibiting the normal library functions, maintain too many card catalogs, have little or no money for subscriptions or books, and do not benefit or engage in networking.

In spite of adverse conditions, McCarthy identifies some outreach measures such as bookboxes serving various sites of large employment in lieu of bookmobiles or branch libraries and bookbanks for economically disadvantaged students. The National Book Institute's (INL) innovative publishing and library programs are worthy of consideration by the economically developed countries. Hundreds of libraries owe their existence to the INL core collection; INL offers technical training for paraprofessionals managing these collections. Guaranteed bloc purchase of approved titles is part of INL's coedition venture with other presses.

The author credits many of Brazil's problems to an unquestioning adherence to the U.S. model by the rightist military government (1964- ). The importation of "foreign subculture" is deplored, but to ignore internationally acclaimed Brazilians as Heitor Vila-Lôbos, Jorge Amado, João Guimarães Rosa, and Clarice Lispector is unjust. One must also exercise critical caution with McCarthy's racial observations.

The chapter on Paraguay is descriptively similar to commentary on Brazil's north-east.

The book as a whole is a useful contribution about libraries, library service, and librarianship. For a comprehensive, analytical survey of Brazilian libraries and education, however, one must consult William V. Jackson's two articles in the *Encyclopedia of Library and Information Science* (vol. 3, p.166-259). His extensive bibliographies include citations through 1969. Those interested in research library collections will still find standard Robert Levine's *Brazil: Field Research Guide in the Social Sciences* (New York: Columbia University, Institute of Latin American Studies, 1966). While this reviewer was disappointed with the treatment of policy issues (e.g., budget, collection scope, state and federal governmental involvement) as well as the anecdotal nature of the study, McCarthy offers much worthy of further thought and research.—Peter T. Johnson, *Ibero-American Bibliographer*, University of Minnesota—Twin Cities.

Drazniowsky, Roman, comp. *Map Librarianship: Readings*. Metuchen, N.J., Scarecrow, 1975. 547p. \$20.00 (LC 74-19244) (ISBN 0-8108-0739-4)



This volume is intended "to provide at least some guidance for map librarians" through "presenting a compilation of selected articles on seven specific subjects" as a "systematic and sequential description of map collection operation." There are forty-eight articles divided under the topics of: introduction to maps (four), the elements of maps (seven), map classification and use (seven), map bibliographies/acquisitions (eight), map processing and cataloging (eight), map storage and preservation (five), and map librarianship/map collections (nine). Two articles were written by the compiler. The volume also has an eighteen-page bibliography section arranged by chapter and an eight-page index. Forty-six authors are represented and include cartographers, geographers, and map librarians from the United States, Canada, Great Britain, and Australia. The articles represent thirteen serial publications: Association of American Geographers *Annals* (one), Association of Canadian Map Librarians *Proceedings* (two), *Canadian Cartographer* (three), *Cartographic Journal* (two), *Geographical Magazine* (two), *International Yearbook of Cartography* (two), *Journal of Geography* (five), *Library Journal* (two), *Military Engineer* (one), *Photogrammetric Engineering* (one), Society of University Cartographers *Bulletin* (one), *Special Libraries* (nine), and Special Libraries Association Geography and Map Division *Bulletin* (seventeen). The articles range in date of original publication from 1950 to 1972, with nine each from 1967 and 1970, five from 1969, four each from 1961 and 1966, three from 1972 and only two from before 1960. The compiler's preface is dated August 1973. Photographs, maps, diagrams, graphs, and charts which originally appeared with the articles have also been reprinted (successfully), and the articles themselves were retyped in a uniform format.

Hopefully, the foregoing analysis of the contents of the volume will give prospective purchasers something to evaluate the book in terms of possible use to themselves. The seven subjects chosen do provide some good basic readings in areas about which map librarians should be concerned. The articles seem to have been thoughtfully chosen and provide a variety of viewpoints. The fact that seventeen articles were drawn

from the Special Libraries Association Geography and Map Division *Bulletin* indicates the importance of this serial as a professional journal. Five of the articles included which were reprinted from *Special Libraries* have also been reprinted previously (with one additional paper) by Special Libraries Association as *Recent Practices in Map Libraries* (1971), and were originally presented in June 1969 at a panel on "Problems of the Smaller Map Libraries." The list of additional references based on the subject of each chapter seems especially useful for furthering one's knowledge of particular areas of interest in the field. Because it is a collection of articles, this volume does provide some more advanced or more specialized material regarding map librarianship than the October 1973 issue of the *Drexel Library Quarterly*, which was devoted entirely to map librarianship on a beginning level. However, this issue costs only \$3.00 while this volume is \$20.00. It is too bad that publication was over a year and a half after the compiler's date of completion, according to his preface.

It is very difficult to criticize such a compilation as to choice of articles. Some articles are omitted, perhaps, because of lag times in publication, such as the previously mentioned *Drexel Library Quarterly* issue or the chapter on "Maps and Map Collections" (by Mary Galneder and this reviewer) included in the *ACRL Publications in Librarianship* no. 34, *Nonprint Media in Academic Libraries* (edited by Pearce S. Grove) which has recently been published (although the chapter was completed in September 1972). I do not wish to go further into comparisons of article choice. What seems most important is that this volume does gather together primarily recent articles relating to maps and map librarianship. It is a bit costly, but I recommend it to those students of map librarianship who have already read and digested the previously mentioned material. Make use of the bibliographies in the articles and those compiled by Mr. Drazniowsky. It is not a dead-end volume. The compiler appears to have achieved his previously quoted purpose.—*Alberta Auringer Wood, Map Specialist, Detroit Public Library.*

Tebbel, John. *A History of Book Publishing in the United States*. Volume II.

The Expansion of an Industry, 1865-1919. New York: Bowker, 1975. 813p. \$29.95. (LC 71-163903) (ISBN 0-8352-0489-9)

It was a pleasant surprise to all persons interested in the history of the American book when the first volume of this important work appeared in 1972 and its high quality was determined. It is even more surprising to see this second volume appear so soon after the first, and it is equally pleasant to note that it is of a quality commensurate with its forerunner. May the author be similarly successful in his projected third and final volume!

Make no mistake about it, this is a *big* book, probably exceeding 350,000 words of text in the one volume alone, plus extensive appended bibliographic paraphernalia. It is so big, in fact, as to raise a question as to just what readership the author is addressing. It is too extensive to serve as a textbook, and few readers are likely to sit down and read through its 800 full pages, despite the fact that it is very well written—even exciting in spots—and the typography and design are carefully chosen to facilitate its reading.

The projected trilogy will certainly serve as a reference set, as virtually all aspects of American publishing history are covered in a comprehensive and balanced manner. Since the text is arranged topically into chapters—except for one section which consists of anecdotes culled chronologically from *PW*—the reference user is heavily reliant upon the index. The index is very full, however, covering more than sixty pages, so it can be expected to serve this purpose admirably.

The volume consists primarily of a large number of extensive essays on different aspects of the American publishing scene from the Civil War to the end of World War I. There are accounts of marketing mechanisms; distribution problems; accounting practices; the economics of publishing, bookselling, and authorship; the rise of the literary agent; and the origins of the university press (Cornell, 1869). There are descriptions of music, textbook, and religious publishing; of the publication of children's books and paperbacks; of labor disputes in the printing industry; of serializa-

tion of novels and attempts to control prices; of the development of modern copy-right; and the sad and usually silly history of censorship. Of considerable reference value is the large number of cameos—three to ten pages in length—of the major publishing houses of the era. And there is a nostalgia trip for those who were reared on *The Prisoner of Zenda*, *Alice of Old Vincennes*, *When Knighthood Was in Flower*, and other books of that ilk.

The author has sought widely for material, with the files of *PW*, newspapers, and literary periodicals serving as his main primary sources. He has also exploited what monographic scholarship has been accomplished on the subject, although these sources are interlarded with the many, usually less reliable, house histories sponsored by the houses themselves. In a few cases, where nothing better was available, he has had to use wholly unreliable local, city, and county histories, but he has done so cautiously. Statements drawing upon these latter two kinds of sources especially will be subject to future correction. The volume is an excellent, comprehensive, well-researched, and nicely written account of a key period in the development of the American book.—David Kaser, Graduate Library School, Indiana University.

Slote, Stanley J. *Weeding Library Collections*. (Research Studies in Library Science, no. 14) Littleton, Colo.: Libraries Unlimited, 1975. 177p. \$10.00. (LC 74-23062) (ISBN 0-87287-105-3)

As the budgetary noose tightens, librarians are looking harder and harder for ways to realize greater cost efficiencies. Among the many solutions proposed is that capital outlay costs be deferred by transferring infrequently used materials to compact or regional storage areas. Though it was long felt that such weeding was a complex task to be done only by subject experts, it is now becoming clearer that the use criterion provides a simple and satisfactory way of identifying materials to be weeded. The theory upon which use-oriented weeding rests traces back to Bradford's "law of scattering," which was given mathematical shoring by Goffman and first applied to actual library weeding routines by Trueswell and Buckland.

Slote's book, basically a reworking of his frequently cited dissertation, shows that the fiction collections of several New Jersey public libraries conform in general to the "law of scattering" observed in other subject areas and other kinds of libraries. In brief, since recently used books are most likely to be reused books, they should constitute any library's "core" collection. Unused books should be stored or discarded. Since Slote intends his book to be a textbook, he also gives a brief history of weeding, a review of weeding literature, a rebuttal of other weeding criteria, and a clear description of "scientific" weeding routines.

On the practical side, Slote's weeding method is sensible and workable. As a textbook, however, the book is weakened by its narrowness of vision. For example, students need to consider at length the implications of the very real conflict that exists in academia between those who see the library as a repository and those who see it as a use-oriented knowledge dispenser. Students should also think about the peculiar coincidence that the no-growth model of the library has emerged simultaneously with the emergence of the no-growth model of the economy at large. That is, are we innovating or are we merely being swept along? On the mathematical side, surely graduate students should at least be shown "mathematical proofs," no matter if, as Slote says (p.64), they are "difficult to follow."

Such general questions aside, the book is badly organized, repetitive, and unnecessarily combative in tone. Rigorous editing could have reduced it to a longish how-to-do-it article for one of the general library periodicals. As it stands, it is a disappointing handling of an important idea, especially when compared with so solid a book as Buckland's *Book Availability and the Library User* (Pergamon, 1975) which develops this subject (as well as others) with such greater incisiveness.—Peter Dollard, *Monteith Library, Alma College, Alma, Michigan.*

Buckland, Michael K., *Book Availability and the Library User*. New York: Pergamon, 1975. 196p. \$7.50 pa. (LC 74-8682) (ISBN 0-08-017709-3) (ISBN 0-08-018160-0 pb.).

Although the publisher's price of \$7.50 for the paperback edition may appear a bit steep for a 196-page monograph, this book should become a classic. The investment in a personal copy should not be begrudged; it is a small price to pay for professional survival. The point may be argued, but I believe that Buckland's greatest contribution is his ability to develop a perspective on libraries and their problems which is thoroughly modern.

For example, Buckland recognizes and accepts a fact which much of the profession tries to ignore: that libraries are finite in nature, that there must and should be limits to their growth. Recognition of our limits must increase our awareness of the need to structure the library within those limits so that the best possible service can be provided to library users.

Service to users is, after all, the means by which most libraries today justify their existence and their annual budget requests. Yet as Buckland points out, there remains a great disparity in the attention paid by the profession to intellectual access and physical access or availability. The priorities assigned by users, and by funding agencies as well, have been clear for quite some time. What has been written on a subject, or even what the library owns on a subject, is generally a matter of less interest than what the library has available on the subject to meet a need at a specific time.

For those librarians ready to accept the concept of the limited library with service to users as its objective, Buckland suggests a number of methods for improving service and measuring it which have been developed through his own research and that of others. Even a partial list of these tools is impressive. One may determine what the optimum size of the library should be, what titles it should contain, and how long those titles should be retained. It is possible to directly measure user frustration with the library and to quantitatively measure the library's performance by its ability to make materials available when needed and to satisfy its users on a continuing basis.

The key to availability lies in understanding the relationship between user demand, loan period, and duplication policy. Clearly the level of demand will vary from title to



title throughout the collection. Therefore, if titles with high demand are to be available, the library must either provide additional copies or insure that the single copy is not kept out by one borrower for an extended time, thus denying access to other borrowers. Buckland proposes a variable loan policy with short loans for popular titles and longer loans for less used materials. Librarians who still have doubts about their ability to secure quicker book returns by simply reducing the official loan period may opt for more duplicates. The important point is recognition of the interrelations among these factors and their impact upon library service.

The experience at Lancaster demonstrates that when the library begins to supply what is wanted when it is wanted (greater immediate availability), not only will user frustration decline and user satisfaction increase, but total use of the library will be stimulated as well. Per capita circulation at Lancaster increased by more than 100 percent in the first year and appears to be enjoying more modest but continued growth through the present.

The format of the book suggests the hope that it be adopted as a required text in library schools—a hope that practicing librarians with a service orientation will probably share. Some may object to the highly structured textbook approach, complete with outlines and summaries for each chapter, but most will approve of the placement of much of the theoretical background and mathematics in separate appendixes. The bibliography also appended is excellent. Unless professional education is even more irrelevant than we think, Buckland's book will probably see widespread use. So be prepared for young librarians who not only take the rhetoric of service seriously, but have the desire and the knowledge to begin transforming rhetoric into reality.—*Robert L. Burr, Director of Circulation, Earl Gregg Swem Library, College of William & Mary, Williamsburg, Virginia.*

Josey, E. J., ed. *New Dimensions for Academic Library Service*. Metuchen, N.J.: Scarecrow, 1975. 349p. \$12.50. (LC 74-30062) (ISBN 0-8108-0786-6)

In his introduction E. J. Josey explains how recent trends have changed the aca-

demical library; so he sought competent persons to write these twenty-five original essays entitled *New Dimensions for Academic Library Service*. Because academic librarians strive to play a more influential role on curriculum committees or academic senates, this series of essays focuses on the initiative of librarians, information scientists, and educators. Four main ideas are featured in the book: (1) the library as a vital component of higher education; (2) new approaches in solving academic library problems; (3) unscrambling academic library issues; and (4) patterns of library information systems, networks, and consortia providing information and library services to academic library users.

The reader learns that many active librarians are interested in where academic education is heading and on whom it is centered. Several librarians have exerted themselves to solve the problems that face academe. A theme that threads itself throughout the essays is change. Change has occurred because of the need to give better service and to address that service to the cynosure of education, the student or user, not the classroom or the teacher.

Part One states that despite the financial bind higher education finds itself in today, academic library programs are examining themselves and changing to more qualitative service, to a concept that will break down barriers between student/teacher, librarian/faculty, and other arbitrary compartmentalizations. The use of newer media especially in community colleges augurs well for the future, as well as the trend toward separate undergraduate libraries in large universities.

The problems tackled in Part Two indicate activities should be oriented toward the library users, what they need, for instance, using computer applications when available, especially looking to the future; also, intimate collecting and sharing arrangements, if only at the regional level. In facing up to the change in today's education, librarians must discover users' needs, even though their involvement in student and faculty activities may result. Besides such involvement at the local level, interest must exist in national concerns such as subject headings for the people, or financial problems affecting black college libraries.



This latter problem is not overstressed, just brought to the forefront so that all may be aware of it.

Confronting current issues may be difficult, yet thought provoking. That librarians have not hesitated to tangle with them is clear in Part Three. To permit the new learners of whatever backgrounds to surface from their immersion in the college's media and technology demands a creative library service. The human touch is important in teaching the use of the library, at the reference interview, in the creative functionality of academic library facilities, in the awareness of the diverse needs and interests that the kaleidoscopic students have for multimedia systems. Management planning must be directed toward the purpose or the goals of the library and the institution, namely, the education of the student; then other problems may solve themselves.

The patterns in Part Four weave systems, networks, and consortia together as basic components for cooperative endeavors so necessary in academic librarianship today. Networks or systems must be constantly changing and developing so that they are directed to the user. Whether it is the 3Rs, Reference and Research Library Resources for reference or the use of OCLC for on-line shared cataloging, the approach is user-oriented. Even public or special libraries add a significant service to higher education, especially of the independent study variety. The final essay challenges librarians to even greater positive action, moving away from traditional services to resurrect not only as the campus information center, but as a *community* center.

The epilog is the editor's essay to prognosticate what the academic library will be like in the year 2000. His prediction is safeguarded by the indications of current trends. It is discouraging to note that librarians impartial to change could live in this environment even though the majority of others would be striving to achieve the necessary advances brought about by the expressed needs of our users.

Using the Contents and fine Index will enable one to locate articles and ideas with ease. Since it is difficult to fault this collection of essays because certain issues, problems, or aspects of academic librarianship were not discussed, hopefully all aca-

demic librarians (and library science teachers) will pursue this volume *in toto*. Only then will the ultimate purpose of this book be achieved, when librarians, aware of the changes and convinced of the value of the newer dimensions, will endeavor to achieve the goals of higher education by the year 2000.—*The Reverend Jovian Lang, Dept. of Library and Information Science, St. John's University, Jamaica, N.Y.*

**Library Manpower: A Study of Demand and Supply.** Bulletin 1852. U.S. Department of Labor, Bureau of Labor Statistics. Washington: Government Printing Office, 1975. 94p. \$1.75. (LC 74-28192) (Stock No. 029-001-01367) (Cat. No. 12.3:1852)

This work represents the most comprehensive study to date of library personnel supply and demand for the period 1960-1985. In addition, the study identifies factors that influence library personnel needs. Using data from the U.S. Office of Education, the U.S. Bureau of the Census, and information gathered from questionnaires and personal interviews, the Bureau of Labor Statistics report goes farther than any previous study to provide important statistical information on librarians and library support staff for school, academic, public, and special libraries.

The material is organized under the following topics: current manpower situations (the most complete and statistically reliable section); projections of manpower demand; projections of manpower supply; and outlook and implications.

Some of the significant conclusions reached by this study are that between 1970 and 1985, total librarian employment is projected to rise 41 percent; during 1970 to 1985 replacement needs, as opposed to growth needs, will probably account for three-fourths of the librarian job openings; educational requirements for librarians are being upgraded significantly; and demand will remain strong for minority librarians, community outreach librarians, audiovisual specialists, automation specialists, and administrators.

In light of demographic and fiscal trends since 1970 (a lower birth rate and less federal funding), the projected 41 percent rise in librarian employment seems overly opti-

mistic. The Bureau of Labor Statistics did try to cover itself by adding a caveat at the end of the *Bulletin* stating: "If, as seems increasingly likely, 1985 population and enrollment levels are lower than those assumed at the time this analysis was carried out, fewer librarians may be required."

The organization of the material is excellent, and the prose is clear, making a wealth of data intelligible and interesting for the layman. This work is well documented and is augmented by numerous tables and readable charts.

Even if the projections for employment are too high, this book should still be on every librarian's, student's, and library educator's priority reading list. Many false assumptions are dispelled, and many suspicions are confirmed by reading this document. There are serious implications for all of us based on their findings which document current trends in librarianship. A few random quotations may serve as examples of the above:

Nearly half of all librarians in the United States were employed in school libraries in 1970.

Probably no more than 40-50 percent of all librarians employed in the United States have a master's degree in librarianship. Employment of library attendants and assistants is expected to grow much more rapidly, through 1985, than employment of professional librarians.

—Janice J. Powell, Assistant to the University Librarian, University of California, Berkeley.

Guyton, Theodore Lewis. *Unionization: The Viewpoint of Librarians*. Chicago: American Library Assn., 1975. 204p. \$10.00. (LC 74-19164) (ISBN 0-8389-0187-5)

Treating southern California as a microcosm of the United States, Mr. Guyton has gathered and analyzed the views of 460 local public librarians toward collective bargaining for their profession. The statistical method employed can occasionally lend oracular solemnity to the obvious. Thus a UCLA computer reveals to us that librarians who are generally against unionism are unlikely to join a library union; and that there is a high positive relationship be-

tween the formation of public librarians' unions and the presence of legislation permitting public employees to bargain collectively. These exuberances of computational power do not, after all, interfere much with the author's other points.

His main point is, of course, what makes these people join or reject unions. Merely economic motives are overshadowed by a complex of interrelated events: The growth of a library turns it into a bureaucracy, in which communications between librarians and administrators are reduced, and a gap grows between their respective roles. Because the librarians perceive their profession to have fitted them to perform at all levels of the bureaucracy, this gap also represents a discrepancy between their desired professional status and what it actually is. Thwarted as individuals, they turn to collective effort, a union.

The author suggests that librarians consider themselves holding a "status ideology," whereby workers seek to share administrative authority without destroying it (as opposed to a "class ideology" of conflict with authority). The questionnaire did not get at this point. Shared authority is such a pawn of rhetoric, like social justice or law and order, that it may not matter.

The author found that employment security had not been important in fostering library unionism. It seems likely that events since 1971-72, when the manuscript appears to have been submitted for publication, have given employment security a greater importance; but that is merely a new chapter in history. Probably nobody is more frustrated than the author by the slow pace of the publisher, for in collective bargaining a delay of three years in publication is serious.

Not every useful point can be cited here, but the study shows that the slowness of public librarians to unionize is not attributable to shyness or any such personality traits with which folklore has vested them.

Mr. Guyton's statistical analyses do tell us important things, but he is at his best when he walks without the aid of the UCLA computer. The book includes a short history of public library unionism in the United States since its beginning in 1917. Inseparable from this history are the roles of ALA and other professional associations,

which the author feels might deter unionization if they performed some of a union's functions. He adds, however, "ALA is encouraging other organizations to assume its role as spokesman for the nation's librarians." This pithy statement demands a challenge—if any ALA champion is awake to make it.

This book deserves special recognition on several scores. It pioneers an approach to collective bargaining among librarians—not the only approach, but a useful one which will probably now be repeated from library school to library school. Moreover, it has drawn on fields of knowledge outside of traditional library science to a degree that presages future effects of collective bargaining on the isolation of the profession.—*John W. Weatherford, Central Michigan University, Mount Pleasant.*

Thomson, Sarah Katharine. *Interlibrary Loan Policies Directory*. Chicago: American Library Assn., 1975. 486p. \$7.95. (LC 74-32182) (ISBN 0-8389-0197-2)

If there is any one person to whom the current generation of interlibrary loan librarians has reason to be grateful, it is Sally Thomson. Her Columbia dissertation (later published as an ACRL monograph) was the first substantial study of interlibrary loan transactions in this country. The *Interlibrary Loan Procedure Manual*, which she published in 1970, makes it possible for the least experienced librarian to properly execute interlibrary loan requests. Her most recent contribution, the *Interlibrary Loan Policies Directory*, will in the future save numerous individual librarians the work of compiling the same data.

The *Directory*, arranged by NUC code, contains information on the lending policies and practices of 276 American academic, public, government, and special libraries. The libraries selected generally lend 250 or more volumes a year to out-of-state libraries. Information given for each institution includes addresses of interlibrary loan and photoduplication services, photocopy practices and charges, and lending policies for periodicals and other serials, microforms, government documents, dissertations and theses, genealogies, and technical reports. The information was supplied by interlibrary loan librarians following a de-

tailed form provided by Dr. Thomson.

The only similar work is the *Directory of Reprographic Services*, issued by the Reproduction of Library Materials Section of the Resources and Technical Services Division of ALA, which contains information on lending policies for dissertations and periodicals as well as information on photoduplication services. But the RLMS directory, because of its lack of standards for inclusion, its inconvenient format, and its lack of detail, has not been very useful to interlibrary loan librarians.

As long as libraries fail to agree on lending policies and practices, a directory such as Dr. Thomson's will be a necessity. The individual interlibrary loan librarian will still need to collect and compile some data since not all libraries could be included in this new directory. It does provide, however, a very substantial common core to which each library can add its own supplementary list.

In order to make it easier to add other entries and also to insert changes as they occur, it would be helpful if the next edition were issued in a more flexible format. It is undoubtedly too much to hope that this public display of their failure to agree will motivate librarians to reexamine their policies and make the publication of future editions unnecessary!—*Marjorie Karlson, Head, Reference Department, University of Massachusetts at Amherst.*

Daily, Jay E. *Cataloging Phonorecordings: Problems and Possibilities*. (Practical Library and Information Science, vol. 1) New York: Marcel Dekker, Inc., 1975. 172p. \$13.75. (LC 73-90723) (ISBN 0-8247-6196-0)

When the *Anglo-American Cataloging Rules* (AACR) were published in 1967, Jay Daily evaluated Part III, "Non-Book Materials" (see his "Selection, Processing, Storage of Non-Print Materials," *Library Trends* 16:283-99 (Oct. 1967)). He was not at all pleased with the new code and subsequently issued his own code for dealing with nonprint materials. Some of his ideas can quite properly be described as radical and controversial. On the other hand, his criticisms of AACR represent something more than a personal idiosyncrasy. If Part III of the code were satisfactory, it is not



likely that we would have seen the publication of four nonbook media cataloging codes, all intended to be working substitutes for AACR, and all produced or endorsed by professional organizations. There is something very, very wrong about AACR's treatment of materials other than books. Daily certainly understands this, but whether or not he has found the underlying causes of the problems is another question.

In this, his latest opus, Daily claims that he does not "advocate a method of cataloging," but intends to offer "a means of understanding what the possibilities are" (p. vii). It is the first title in a series called "Practical Library and Information Science," and the reader should not expect to find any searching examinations of theoretical problems. Nor will one find information dealing with recordings other than modern LP and tape formats. For problems and possibilities of the sort involved in reference and archival collections, the reader must look elsewhere.

Daily's approach is based on the "unit-entry system," which he sets up in opposition to the "main-entry system" of AACR. He systematically discusses the bibliographical elements in his system, which are laid out in ten fields: (1) title, (2) author, composer, (3) performer, (4) producer, (5) identifying numbers, (6) physical description, (7) distributor's series number, (8) additional description, (9) contents, and (10) points of access or tracings. The whole approach is based on the assumption that technical assistants can be trained to do original cataloging of sound recordings.

The work does not presume much on the part of the reader. Statements such as these are typical: "Phonodiscs are sold in cardboard envelopes sometimes called a 'record sleeve.' . . . There is an attention-getting picture on one side and notes on the other" (p.13); "Singers of opera and other serious music have a definite voice range" (p.69); "This phonorecording was made in Germany and the label is, naturally, in German" (p.71); "Operas, some symphonic works, operettas, musical comedies, and ballet scores have definite titles, given by the composer to the work he writes, or at least the librettist" [sic] (p.41). The ultimate authority on all matters of music is

the Schwann catalog, which is described as "the only essential reference tool for the cataloger" (p.xvi). Uniform titles are defined as titles "taken from a list employed by the cataloger in order to provide a uniform approach to the contents of phonorecordings" (p.36). These statements, which speak for themselves, suggest the general flavor of Daily's style and the depth of his thinking. His work can be recommended only to those librarians who believe that the cataloging of music is a simple process that can be left to technical assistants, amateurs, and people who know nothing about music and are not willing to learn anything about it.—Gordon Stevenson, Associate Professor, State University of New York at Albany.

Grove, Pearce S., ed. *Nonprint Media in Academic Libraries*. (ACRL Publications in Librarianship, no. 34) Chicago: American Library Assn., 1975. 239p. \$10.00. (LC 74-23972) (ISBN 0-8389-0153-0)

*Nonprint Media in Academic Libraries* is both a guide and a state-of-the-art survey for academic librarians needing information on the selection, classification, and cataloging of nonprint materials. The work provides a general overview of the history of the use of nonprint materials in chapters on bibliographic organization, selection and acquisition, and standards. Individual chapters are devoted to the problems associated with the development of collections in various nonprint formats. The types of media included are sound recordings, slides, film, filmstrips, maps, and photographs. Each chapter is authored by a person with experience and knowledge in the topical area.

Any guide to nonprint materials in academic libraries is useful and welcome. Nevertheless, this one is somewhat incomplete, out of date, and of uneven quality.

The most conspicuous lack is a chapter on videocassettes, the fastest growing format in many academic libraries. The reviewers do not agree with the statement that these materials "require more expertise and research than is available to librarians." Many institutions have already had to decide between offerings of videocassettes and motion picture films of the same titles, and a number of them have begun the develop-



ment of extensive videocassette collections on the basis of their research.

Many of the chapters appear to have been written in 1972. While a two to three year publication lag is not uncommon, it is most unfortunate that it should occur with a work in a rapidly changing field.

There is an emphasis on history and state of the art as of 1972 with little projection of trends. Forecasting is never safe, but it's important where one is investing thousands of dollars per institution in equipment and materials.

The organization of the book into non-print formats supports the traditional, perhaps dubious, concept of the uniqueness of each format and the "problems" associated with it. There is also considerable repetition as each author covers the same basic areas of selection, classification and cataloging, equipment, and varieties of users. Because of space limitations, each treatment tends to be superficial. As with any such compilation the quality of each chapter varies enormously.

A discussion of the alternatives of centralizing nonprint resources and services in a separate department or dispersing them throughout a multidepartmental library system would have greatly enhanced this guide. The common practice of reformatting to avoid proliferation of equipment types is not discussed, neither from a service standpoint or in the light of copyright restrictions.

In discussing the area of selection and acquisition of filmstrips, Fields and Schulzetenberg repeat the old myth that the retrospective and current evaluative tools for nonprint materials are nonexistent. They go on to commiserate with the poor librarian who is "forced then to utilize individual selection methodology rather than relying on good selection tools." The unfortunate fact is that Messrs. Fields and Schulzetenberg's information is inaccurate and out of date.

The oft-repeated statement that there is chaos in the bibliographic control of non-print materials is simply not accurate. The current journals are becoming more comprehensive, critical in their stance, and broader in their scope of coverage. For example, the *Booklist's* excellent nonprint reviewing service evaluated and recommended 815 individual filmstrips from September

1973 to August 1974. The newly reorganized *Media Review Digest* (formerly *Multi Media Review Index*, 1970-) is an excellent tool for finding reviews of specific titles, for keeping up with disconographies and filmographies, and for keeping abreast of awards and citations. In the retrospective area, the *NICEM Index to 35 mm Educational Filmstrips* (5th edition, 1975) provides comprehensive subject and title access to commercially produced educational filmstrips.

Those academic librarians who are specialists in nonprint materials should read this guide as well as all other literature in the field, but others might best rely on the recent journal literature.—Richard W. Boss, *Librarian, Princeton University*, and Anne W. LeClercq, *Nonprint Librarian, University of Tennessee at Knoxville*.

## OTHER PUBLICATIONS OF INTEREST TO ACADEMIC LIBRARIANS

*The American Bibliography of Slavic and East European Studies for 1973*. Ed. by David H. Kraus. Columbus, Ohio: Prepared at the Library of Congress for the American Association for the Advancement of Slavic Studies, 1975. 226p. \$8.00.

*American Reference Books Annual 1975*. Ed. by Bohdan S. Wynar. Littleton, Colo.: Libraries Unlimited, 1975. 904p. \$25.00. (75-120328) (ISBN 0-87287-114-2)

American Theological Library Association. *Proceedings, 28th Annual Conference, Iliff School of Theology, Denver, Colo., June 17-21, 1974*. Philadelphia: American Theological Library Association, 1974. 156p. \$4.00, postpaid.

*Anatomy of an International Year; Book Year, 1972*. (Reports and Papers on Mass Communication, no. 71) Paris: UNESCO, 1974. 37p. \$2.00. (ISBN 92-3-101186-3)

Asheim, Lester, and Fenwick, Sara I., eds. *Differentiating the Media*. (University of Chicago Studies in Library Science Series) Chicago: Univ. of Chicago Pr.,

1974. 74p. \$5.95. (74-28809) (ISBN 0-226-02964-6)
- Berkowitz, Freda P. *Popular Titles and Subtitles of Musical Compositions*. 2d ed. Metuchen, N.J.: Scarecrow, 1975. 217p. \$8.00. (75-4751) (ISBN 0-8108-0806-4)
- Booth, Marcella. *A Catalogue of the Louis Zukofsky Manuscript Collection*. Austin: Univ. of Texas, Humanities Research Center, 1975. 248p. \$18.50. (70-38572)
- Core Media Collection for Secondary Schools*. Ed. by Lucy G. Brown. New York: Bowker, 1975. 221p. \$16.95. (75-8792) (ISBN 0-8352-0643-2)
- Davidson, James R. *A Dictionary of Protestant Church Music*. Metuchen, N.J.: Scarecrow, 1975. 349p. \$12.50. (74-30101) (ISBN 0-8108-0788-2)
- Ehresmann, Donald L. *Fine Arts: A Bibliographic Guide to Basic Reference Works, Histories, and Handbooks*. Littleton, Colo.: Libraries Unlimited, 1975. 288p. \$16.00. (74-32452) (ISBN 0-87287-070-7)
- Enser, A. G. S. *Filmed Books and Plays; A List of Books and Plays from Which Films Have Been Made; 1928-1974*. New York: Academic Pr., 1975. 549p. \$24.00. (ISBN 0-233-96676-5)
- Erickson, Keith V. *Aristotle's Rhetoric: Five Centuries of Philological Research*. Metuchen, N.J.: Scarecrow, 1975. 195p. \$7.50. (75-5639) (ISBN 0-8108-0809-9)
- The Federal Role in Postsecondary Education; Unfinished Business, 1975-1980*. A Report by the Carnegie Council on Policy Studies in Higher Education. San Francisco: Jossey-Bass, 1975. 97p. \$4.95. (75-4482) (ISBN 0-87589-259-0)
- Gailey, Harry A. *Historical Dictionary of the Gambia*. (African Historical Dictionaries, No. 4). Metuchen, N.J.: Scarecrow, 1975. 180p. \$7.00. (75-5882) (ISBN 0-8108-0810-2)
- Goell, Yohai, comp. *Bibliography of Modern Hebrew Literature in Translation*. Tel Aviv: Institute for the Translation of Hebrew Literature, 1975. 117p.
- Government Publications Guide: 1974*. (Book Guide Series) Boston: G. K. Hall, 1975. 2v. \$90.00. (74-24807) (ISBN 0-8161-6805-9)
- A Guide to Theses and Dissertations; An Annotated, International Bibliography of Bibliographies*. Ed. by Michael M. Reynolds. Detroit: Gale, 1975. 599p. \$35.00. (74-11184) (ISBN 0-8103-0976-9)
- Havlice, Patricia Pate. *Index to Literary Biography*. Metuchen, N.J.: Scarecrow, 1975. 2v. \$39.50. (74-8315) (ISBN 0-8108-0745-9)
- Hillard, James M. *Where to Find What: A Handbook to Reference Service*. Metuchen, N.J.: Scarecrow, 1975. 280p. \$10.00. (75-6723) (ISBN 0-8108-0813-7)
- How to Investigate the Copyright Status of a Work*. (Copyright Office, Circular No. 22). Washington, D.C.: Govt. Print. Off., 1975. 7p. Free on request.
- Hu, Teh-Wei; Booms, B. H., and Kaltreider, Lynne W. *A Benefit Cost Analysis of Alternative Library Delivery Systems*. (Contributions in Librarianship and Information Science, No. 13). Westport, Conn.: Greenwood, 1975. 286p. \$12.50. (74-5989) (ISBN 0-8371-7528-3)
- International Index to Multi-Media Information 1970-1972*. New York: Bowker, 1975. 465p. \$30.00. (75-960) (ISBN 0-8352-0808-7)
- Mabbs, A. W. *The Organization of Intermediate Records Storage*. (Documentation, Libraries and Archives: Studies and Research, No. 5) Paris: UNESCO, 1974. 74p. \$3.30. (ISBN 92-3-101152-9)
- More Than Survival; Prospects for Higher Education in a Period of Uncertainty*. A Commentary with Recommendations by the Carnegie Foundation for the Advancement of Teaching. San Francisco: Jossey-Bass, 1975. 166p. \$6.95. (75-4481) (ISBN 0-87589-258-2)
- 1973 Provisional World List of Periodicals Dealing with Science and Technology Policies; Paris, May, 1974*. (Science Policy Studies and Documents, No. 33). Paris: UNESCO, 1974. 112p. \$4.95. (ISBN 92-3-101189-8)
- Pan, Elizabeth. *Automated Serials Control System*. Albany: The University of the State of New York, The State Education Department, 1975. 116p. \$1.50. (Order from: New York State Library, Gift and Exchange Section, Albany, NY 12234)
- Petersen, Carl. *Each in its Ordered Place: A Faulkner Collector's Notebook*. Ann

Arbor: ARDIS Publishers, 1975. 311p. \$16.95. (0-88233-096-9)

*Printing for Pleasure; An Exhibit Sponsored by the Friends of Morris Library.* Carbondale: Southern Illinois Univ., n.d. 29p.

*Reference and Subscription Books Reviews 1972-1974.* Prepared by the American Library Association Reference and Subscription Books Review Committee. Chicago: American Library Assn., 1975. 404p. \$8.50 pa. (73-159565) (ISBN 0-8389-0194-8)

Rehrauer, George. *The Short Film; An Evaluative Selection of 500 Films.* New York: Macmillan, 1975. 199p. \$12.50. (74-31408) (ISBN 0-02-469530-0)

*Science and Technology Policies Information Exchange System (SPINES); Feasibility Study.* (Science Policy Studies and Documents, No. 33(1)). Paris: UNESCO, 1974. 115p. \$4.95. (ISBN 92-3-101185-5)

*Science Fiction Book Review Index, 1923-1973.* Ed. by H. W. Hall. Detroit: Gale, 1975. 438p. \$45.00. (74-29085) (ISBN 0-8103-1054-6)

Stewart John, comp. *Filmarama. (The Formidable Years, 1893-1919, v.1).* Metuchen, N.J.: Scarecrow, 1975. 401p. \$15.00. (75-2440) (ISBN 0-8108-0802-1)

Stoffer, Janet Y., ed. *Science Fair Project Index 1960-1972.* Metuchen, N.J.: Scarecrow, 1975. 734p. \$25.00. (74-30269) (ISBN 0-8108-0783-1)

Sumar, Suseela. *The Changing Concepts of Reference Service.* Delhi: Vikas Publishing House, 1974. 327p. Rs 40. (ISBN 0-7069-0302-1)

*Virginia Union List of Biomedical Serials.* 5th ed. Charlottesville: University of Virginia, School of Medicine, 1975. 322p.

Ward, Patricia L. *Introductory Guide to Research in Library and Information Studies in the U.K.* (Library Association Pamphlet, No. 37). London: The Library Association, 1975. 80p. £2.00 (ISBN 0-85365-058-6)

Wellisch, Hans (Hanan). *Transcription and Transliteration.* Silver Spring, Md.: Institute of Modern Language, 1975. 133p. (74-77274) (ISBN 0-88499-149-0)

## ABSTRACTS

The following abstracts are based on those prepared by the ERIC Clearinghouse on Information Resources, Stanford Center for Research and Development in Teaching, School of Education, Stanford University.

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**The Library-College Concept: For the Want of a Horse Shoe Nail.** By Florence E. De Hart. Graduate Library School, Kansas State Teachers Coll., Emporia. 1974. 55p. (ED 098 995, MF—\$.075, HC—\$3.15).

The library-college concept is a teaching method which differs from traditional methods in that librarians and faculty work more closely together in carrying out course objectives and tend toward a convergence in role or a symbiotic relationship. In the spring of 1967 an upperclass course in library materials was taught using this method at a small university. The course plan included brief lectures, assignment of a research project, talks by library staff members, conferences with librarians, presentation of class reports, and open-book tests. Small difficulties and inconveniences, mostly arising from the lack of time and other resources, threatened the successful implementation of the library-college concept, but the concept was found to be promising with respect to increasing student involvement and enthusiasm. It was concluded that librarians will begin to play their role in implementing the library-college concept when they become aware of the efforts on the part of the faculty in this regard, and



that implementation of the concept will reveal so much basic worth that its eventual theoretical development will pose no problem.

**A Mathematical Model of the Illinois Interlibrary Loan Network.** Project Report Number One. By William B. Rouse and others. Coordinated Science Lab., Univ. of Illinois, Urbana. 1975. 59p. (ED 101 667, MF—\$0.76, HC—\$3.32).

Progress on the development of a mathematical model and associated computer programs for use by the Illinois State Library in evaluation and planning of the interlibrary loan (ILL) network is summarized. Pertinent published literature on ILL networks is reviewed in terms of network structure, operations, satisfaction of requests, and cost. A flow chart model of the Illinois ILL network is outlined, and then alternate approaches are considered for the mathematical modeling of an ILL network. Network flow theory and simulation are discarded in favor of a hierarchical queueing network which will be analyzed using approximations that will be validated with simulation. An initial version of this model, named ILLINET, has been programmed into an on-line interactive package where the user can input alternative network operating policies and test the effect upon average delay in satisfying a request, probability of satisfying a request, total network operating costs, and unit costs. Six possible hardware applications of computer and communications technology are discussed, ranging from simple telephone and WATS line to the possible use of a computer to control the whole network.

**A Comparative Study of Organizational Characteristics Used in Learning Resources Centers and Traditionally Organized Library and Audio-Visual Service Facilities in Four Minnesota and Wisconsin Senior Colleges.** By Dwight Francis Burlingame. 1974. 135p. (ED 101 1686, MF—\$0.76, HC—\$6.97).

An investigation was made of the organizational characteristics of two college learning resource centers as compared with two traditionally organized college libraries with separate audiovisual units in order to determine the advantages of each organi-

zational type. Interviews, observation, and examination of relevant documents were used to determine organizational characteristics, types and qualities of resources, facilities, staffing, and services at each institution. The author concluded that the services provided by the two types of organizations are not necessarily different, and that the attitudes of director and staff have the most important influence on the success of the service.

**The University Library: A Study of Services Offered the Blind.** By Derral Parkin. Graduate Dept. of Library and Information Science, Brigham Young Univ., Provo, Utah. 1974. 82p. (ED 102 972, MF—\$0.76, HC—\$4.43).

A survey based on the ALA "Standards for Library Services for the Blind and Visually Handicapped" (1966) was sent to sixty-four four-year universities in the states of Utah, Idaho, Wyoming, Colorado, New Mexico, Nevada, Montana, and Arizona. Libraries were asked how many blind patrons they had and what services and facilities were available to them. A second survey was administered to blind students attending Brigham Young University during the spring of 1974. Eleven students answered questions on the frequency with which they used the library and which facilities and media they preferred. Students rated existing services and suggested improvements and additions to service. An analysis of both surveys showed that full potential service to the blind is not offered by universities in the intermountain West. Suggestions for improvement are provided.

**A Study Guide for Use with the Law Books of Love Library, San Diego State University.** By Kathleen L. Coleman. Malcolm A. Love Library, San Diego State Univ., San Diego, Calif. 1974. 54p. (ED 102 988, MF—\$0.76, HC—\$3.32).

Intended for the neophyte user of the law collection of Love Library at San Diego State University, this guide introduces the major reference books which enable users to work with statutory and case law. Each of the law reference tools in the library collection is described in terms of basic content and format, plus call number. Instructions are given for using the work and sup-



plementary resources. Section one of the guide covers statutory and administrative laws of the U.S. government, the state of California, and local ordinances. Section two describes the reference tools to be used in studying case law, including official law reports of the federal government and California, unofficial case reports, digests, and digest tables. Other legal reference tools, such as dictionaries, periodical indexes, directories, and research handbooks, are also described. A title index and table of standard legal abbreviations are provided.

**Collection Evaluation in the College Library.** By Douglas M. Abrams. Graduate Dept. of Library and Information Science, Brigham Young Univ., Provo, Utah. 1974. 68p. (ED 102 994, MF—\$0.76, HC—\$3.32).

To find out to what extent the evaluation methods described in the professional literature are actually utilized by practicing librarians, a study was conducted of the collection evaluation practices in 111 libraries supporting four-year colleges. Three assumptions were tested: that collection evaluation in the population would be more heavily weighted toward the quantitative techniques; that evaluations would tend to be limited in scope rather than comprehensive; that evaluation activity would not be formalized by written final reports and recommendations. Data collected from questionnaires supported only the last two assumptions, which led to the conclusion that collection evaluation activities were more widespread in the population than had been expected, but that much of such activity was ineffective because of a failure to conceive of evaluation as a process.

**How to Use the Library.** By Kathleen Coleman and Charles Dintrone. Malcolm A. Love Library, San Diego State Univ., San Diego, Calif. 1974. 93p. (ED 102 995, MF—\$0.76, HC—\$4.43).

For the benefit of students at San Diego State University, a guide lists basic types of information sources, showing how to research both familiar and unfamiliar subjects, and helps locate needed materials efficiently. Explanations are included of the card catalog, periodical indexes, newspaper indexes, general reference sources, book re-

views, government publications, and microforms and other nonbook materials. A physical description of the library is included. A final section explains how to prepare an annotated bibliography.

**A Cost Analysis of the Automated Systems Control Group, the Acquisitions Department, and the Catalog Department of the Central Technical Services.** By Owais Bayunus. Univ. Libraries, Cornell Univ., Ithaca, N.Y. 1975. 102p. (ED 102 996, MF—\$0.76, HC—\$5.70).

A time and cost study and a work sampling study were conducted during the period of June 1974 to November 1974 in the Central Technical Services department of the Cornell University Library System. This department renders acquisitions and cataloging services to all the endowed college and departmental libraries in the system except the Hotel Administration and Law Libraries. The Automated Systems Control Group, the Acquisitions Department, and the Catalog Department were studied to provide information and recommendations for the improvement of the Central Technical Services operations. Specific recommendations resulting from those studies are provided together with estimates of the costs and the time requirements of various operations.

**Price Trends Affecting Academic Library Budgets.** By Miriam A. Drake. Univ. Libraries and Audio-Visual Center, Purdue Univ., Lafayette, Ind. 1975. 23p. (ED 103 020, MF—\$0.76, HC—\$1.58).

Price trends for the major operating expenditures of the Purdue University Libraries are examined. Four years of price data on books and serials purchased for various academic disciplines are presented. Price trend data are also presented for other library expenditures including salaries, wages, equipment, telephone, and supplies. It is concluded that although computerization may reduce real labor costs, the price trends indicate that further cost increases can be expected.

**Citation Manual for United States Government Publications.** By George D. Brightbill and Wayne C. Maxson. Center for the Study of Federalism, Temple Univ.,

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Philadelphia, Pa. 1974. 61p. (ED 103  
027, MF—\$0.76).

A manual was developed to give "some rational guidance in citing procedures for U.S. government publications." The manual calls for full citations, rather than abbreviations in order to ease the task of identifying and locating a document. Directions are given for bibliographic citations of: general publications; congressional publications; presidential publications; laws, regulations, treaties, Supreme Court decisions, and the Constitution; as well as periodicals. Appendixes contain a selected list of style manuals and sample bibliographic citations.

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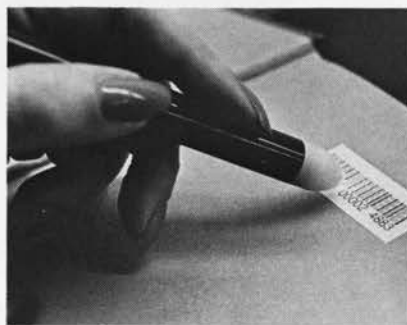
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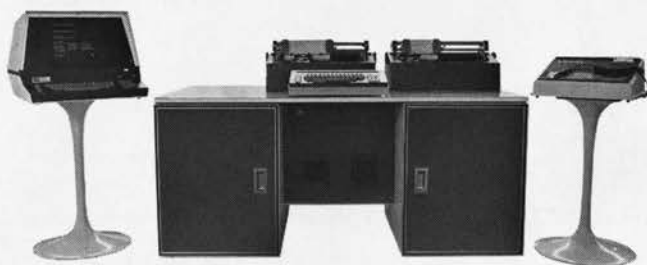
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